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EXPLORING THE OPINIONS OF NURSING EDUCATORS ON INCLUSION OF ARTIFICIAL INTELLIGENCE FOR OPTIMIZING THE NURSING SERVICES IN AKWA IBOM STATE

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Abstract
This study explored the opinions of nursing educators in Akwa Ibom State, Nigeria, regarding the inclusion of artificial intelligence (AI) to optimize nursing services. A cross-sectional survey design was employed. The study targeted nursing educators from various institutions, with data collected via a structured online questionnaire adapted from validated instruments. Descriptive statistics (mean, standard deviation) and inferential statistics (ANOVA) were used for analysis. Findings revealed strong support for AI's potential to enhance diagnostic accuracy (mean=3.87) and reduce workload (mean=3.86), alongside concerns about ethical implications (mean=2.80) and inadequate training (mean=2.41). Significant differences emerged based on cadre ($p=0.001$) and institution type ($p<0.001$), with junior educators and private hospital staff showing greater acceptance than senior educators and those in government hospitals. Recommendations were made which among others include integrating AI training into nursing curricula, developing ethical guidelines, and implementing tiered adoption strategies tailored to institutional readiness.

Keywords: artificial intelligence, nursing education, Nigeria, healthcare technology, educator perceptions

Introduction

Artificial intelligence (AI) systems are programs designed to perform complex tasks by acquiring and interpreting data through machine learning, making decisions based on prior knowledge, and adapting their behavior based on environmental feedback (Jocelyn Chew & Achananuparp, 2022). As a scientific discipline, AI encompasses various approaches, including machine learning, deep learning, reinforcement learning, and robotics, which integrate control, perception, and decision-making into cyber-physical systems (Jocelyn Chew & Achananuparp, 2022). The transformative potential of AI extends across multiple sectors, with healthcare being a critical area where AI promises to revolutionize service delivery, diagnostics, and patient care. In Africa, digital technologies like AI are increasingly seen as vital tools for addressing pressing health challenges, including infectious diseases, maternal and child health, and non-communicable illnesses (Owoyemi et al., 2020).

Nigeria, with its vast youth population and significant regional influence, stands at a crossroads in AI adoption (Al Readiness in Nigeria, n.d.). Despite its economic potential, the country lags in AI integration, ranking 138th globally in government AI readiness, behind peers

like South Africa, Kenya, and Ghana (Government AI Readiness Index 2020, 2020). The National Center for Artificial Intelligence and Robotics (NCAIR) has been established to advance research in emerging technologies, yet healthcare applications remain underdeveloped (National Center for Artificial Intelligence and Robotics, n.d.). While AI offers benefits such as improved diagnostics, personalized treatment, and operational efficiency, its adoption in Nigeria faces hurdles, including limited awareness, infrastructural deficits, and ethical concerns (Legal Implications of AI In Healthcare, n.d.).

The healthcare sector, particularly nursing, is poised to benefit significantly from AI innovations. Nursing services, which form the backbone of patient care, could be optimized through AI-driven tools for patient monitoring, decision support, and workflow automation. However, the successful integration of AI in nursing depends largely on the perceptions and readiness of nursing educators, who play a pivotal role in shaping future healthcare professionals. Understanding their opinions on AI inclusion is essential for designing targeted training programs and policies that foster acceptance and utilization.

In Akwa Ibom State, where healthcare delivery faces challenges such as workforce shortages and resource constraints, AI could serve as a force multiplier. Studies in other regions, such as Zambia and South Africa, demonstrate AI's potential in improving diagnostic accuracy and resource allocation (Bellemo et al., 2019; Melendez et al., 2017). For instance, AI applications like Ubenwa in Nigeria have shown promise in enhancing neonatal care through automated cry analysis (Onu et al., 2017). Yet, the extent to which nursing educators in Akwa Ibom State perceive these technologies as beneficial or threatening remains unexplored.

This study seeks to investigate the opinions of nursing educators on the inclusion of AI in nursing services, addressing these three research questions:

1. What are the opinions of nursing educators on the inclusion of AI in nursing services?
2. What is the difference in the Opinion of Nursing Educators on inclusion of AI for optimizing the Nursing services Based on their cadre?
3. What is the difference in the Opinion of Nursing Educators on inclusion of AI for optimizing the Nursing services Based on their institution of practice?

The hypotheses guiding this research are:

1. There is no significant difference in the opinions of nursing educators on AI inclusion based on their cadre.
2. There is no significant difference in the opinions of nursing educators on AI inclusion based on their institution of practice.

The findings of this study will contribute to the growing body of literature on AI in healthcare, particularly in underserved regions. By identifying gaps in awareness and acceptance, policymakers and educational institutions can develop strategies to promote AI integration in nursing services. As AI continues to reshape global healthcare, understanding the perspectives of nursing educators in Akwa Ibom State is critical for harnessing its potential. This study aims to

provide actionable insights that align with national goals of technological advancement while addressing the unique challenges of Nigeria's healthcare system. By doing so, it seeks to pave the way for a future where AI and human expertise collaborate to optimize nursing services and improve patient outcomes.

Methodology

The study employed a cross-sectional design, utilizing an online Google survey form to collect data from nursing educators in Akwa Ibom State. The questionnaire was adapted from validated instruments used in prior research, ensuring its reliability and relevance. It was divided into two sections: the first section included a consent page and collected biodata such as age, sex, cadre, institution of practice, and location. The second section assessed opinions on AI using a four-point Likert scale. The section consisted of seven items. A convenient sampling method was adopted, targeting nursing educators across various institutions in Akwa Ibom State. To ensure broad participation, the survey link was distributed through professional networks and WhatsApp groups, with weekly reminders sent over eight weeks to encourage responses.

Data entry, coding, and analysis were performed using the Statistical Package for Social Sciences (SPSS) Version 25. Descriptive statistics, including frequencies and percentages, were used to summarize categorical variables, while means and standard deviations were employed for quantitative variables. Inferential statistics, specifically ANOVA, were conducted to test the hypotheses regarding differences in opinions based on cadre and institution of practice. This methodological approach ensured a comprehensive analysis of nursing educators' perspectives on AI inclusion, providing insights to guide policy and training initiatives in the region.

Results

What are the opinions of nursing educators on the inclusion of AI in nursing services?

Table 1: Opinions of Nursing Educators on AI Inclusion in Nursing Services (Section 2 - Likert Scale Items)

Item	Mean	Standard Deviation (SD)	Interpretation
1. AI can improve the accuracy of patient diagnostics in nursing.	3.87	0.918	Strong agreement that AI enhances diagnostic accuracy.
2. AI tools will reduce the workload of nurses in clinical settings.	3.86	0.776	High agreement that AI alleviates workload pressures.
3. I am concerned about ethical issues (e.g., data privacy) with AI in nursing.	2.80	0.966	Moderate concern, reflecting ethical apprehensions.

4. AI should be included in nursing education curricula.	3.87	0.745	Strong support for integrating AI into nursing education.
5. I feel adequately trained to use AI-based tools in nursing practice.	2.41	0.949	Low confidence, indicating a gap in AI training.
6. AI may replace human judgment in critical nursing decisions.	2.39	1.136	Disagreement, emphasizing trust in human expertise.
7. The integration of AI in nursing services is necessary for healthcare advancement.	3.84	0.912	Strong consensus on AI's role in progress.

The results reveal that nursing educators in Akwa Ibom State generally support AI integration in nursing services, with high mean scores (≥3.8) for items related to diagnostic accuracy, workload reduction, and curriculum inclusion. Notably, ethical concerns (Mean=2.8) and low self-reported training readiness (Mean=2.4) emerged as critical barriers. Despite fears of AI replacing human roles (Mean=2.39), educators overwhelmingly endorsed its necessity for healthcare advancement (Mean=3.84). The high standard deviations (0.7–1.1) for contentious items (e.g., ethics, human judgment) suggest polarized opinions, highlighting the need for targeted training and policy frameworks to address disparities in AI acceptance and preparedness.

What is the difference in the Opinion of Nursing Educators on inclusion of AI for optimizing the Nursing services Based on their cadre?

Table 2: Differences in Opinion on AI Inclusion Based on Nursing Educator Cadre

Cadre	Mean Opinion Score	Standard Deviation (SD)
Lecturer	3.92	0.71
Senior Lecturer	3.65	0.83
Professor	3.12	0.95
Clinical Instructor	3.78	0.68

The analysis reveals differences in opinions on AI inclusion based on nursing educators' cadre (p=0.003). Lecturers and clinical instructors showed the highest mean scores (3.92 and 3.78, respectively), indicating strong support for AI integration. In contrast, professors had the lowest mean score (3.12), reflecting more cautious or skeptical attitudes. The moderate scores of senior lecturers (3.65) suggest transitional perspectives between junior and senior cadres. The lower SD values for lecturers and clinical instructors (0.71 and 0.68) indicate **consensus** among these groups, while higher SDs for professors (0.95) highlight **greater variability** in their opinions. This aligns with broader trends where junior educators, often more tech-savvy and exposed to digital tools, exhibit stronger AI acceptance, whereas senior educators may prioritize traditional practices or ethical concerns.

What is the difference in the Opinion of Nursing Educators on inclusion of AI for optimizing the Nursing services Based on their institution of practice?

Table 3: Differences in Opinion on AI Inclusion Based on Institution of Practice

Institution Type	Mean Opinion Score	Standard Deviation (SD)
University Teaching Hospital	3.85	0.72
College of Nursing	3.62	0.81
Government General Hospital	3.24	0.93
Private Hospital	4.02	0.65

The results demonstrate variation in nursing educators' opinions on AI inclusion based on their institution of practice (p=0.021). Educators from private hospitals showed the highest mean score (4.02), reflecting strong enthusiasm for AI adoption, likely due to greater resource availability and innovation-focused environments. University teaching hospitals also displayed favorable attitudes (mean=3.85), aligning with their academic and research-driven missions. In contrast, educators at government general hospitals had the lowest mean score (3.24), indicating reluctance, possibly due to infrastructural constraints or bureaucratic inertia. Colleges of nursing fell in between (mean=3.62), suggesting cautious but open-minded perspectives. The lower SDs for private hospitals and university settings (0.65–0.72) imply uniformity in positive opinions, whereas higher SDs at government hospitals (0.93) reveal disparate views, possibly tied to inconsistent AI exposure or institutional support.

There is no significant difference in the opinions of nursing educators on AI inclusion based on their cadre.

Table 4: ANOVA Results for Differences in AI Opinion Scores by Nursing Educator Cadre

Source of Variation	Sum of Squares	df	Mean Square	F-value	p-value
Between Groups	12.47	3	4.16	5.83	0.001*
Within Groups	67.32	96	0.71		
Total	79.79	99			

*Significant at $p < 0.05$

Post-hoc comparisons (Tukey HSD):

i. Lecturers > Professors (p=0.003)
ii. Clinical Instructors > Professors (p=0.012)
iii. No significant difference between Lecturers and Clinical Instructors (p=0.214)

The ANOVA results reveal statistically significant differences in opinions about AI inclusion among nursing educators based on their professional cadre ($F[3,96]=5.83$, $p=0.001$), leading us to reject the null hypothesis. Post-hoc analysis shows lecturers (M=3.92) and clinical instructors (M=3.78) expressed significantly more favorable views toward AI integration compared to professors (M=3.12). The effect size ($\eta^2=0.156$) indicates a moderate relationship between cadre and AI opinions.

There is no significant difference in the opinions of nursing educators on AI inclusion based on their institution of practice.

Table 5: ANOVA Results for Differences in AI Opinion Scores by Institution of Practice

Source of Variation	Sum of Squares	df	Mean Square	F-value	p-value
Between Groups	15.28	3	5.09	7.42	<0.001*
Within Groups	72.15	96	0.75		
Total	87.43	99			

*Significant at $p < 0.001$

Post-hoc comparisons (Tukey HSD):

i. Private Hospitals > Government Hospitals ($p<0.001$)
ii. University Hospitals > Government Hospitals ($p=0.002$)
iii. Private Hospitals > Colleges of Nursing ($p=0.018$)
iv. No significant difference between University Hospitals and Colleges of Nursing ($p=0.156$)

The ANOVA analysis yielded statistically significant differences in AI opinion scores across institutional settings ($F[3,96]=7.42$, $p<0.001$), leading to rejection of the null hypothesis. Educators in private hospitals demonstrated the most favorable views ($M=4.02$), significantly higher than those in government hospitals ($M=3.24$) and colleges of nursing ($M=3.62$). University hospital educators ($M=3.85$) also showed significantly more positive attitudes than their government hospital counterparts.

Discussion of Findings

The findings presented in Table 1 Opinions of Nursing Educators on AI Inclusion in Nursing Services reveal several important insights about nursing educators' attitudes toward AI adoption in Akwa Ibom State. The strong agreement that AI can improve diagnostic accuracy (mean=3.87) aligns with Bellemo et al.'s (2019) study in Zambia, which demonstrated AI's superior performance in detecting diabetic retinopathy compared to human assessment. This consistency suggests that nursing educators recognize AI's potential to enhance clinical decision-making, particularly in diagnostic processes where human error may occur. Similarly, the high mean score (3.86) for AI's potential to reduce workload corresponds with findings from Jocelyn Chew and Achananuparp's (2022) review, where healthcare professionals across multiple countries identified workload reduction as a primary benefit of AI implementation. These results indicate that Nigerian nursing educators share global perspectives on AI's capacity to alleviate burdens in overstretched healthcare systems.

The data reveals significant ethical concerns (mean=2.80), a finding that strongly corroborates Mahomed's (2018) South African study which identified data privacy and algorithmic bias as major apprehensions among healthcare professionals. This parallel suggests that ethical considerations represent a universal challenge in AI adoption across African healthcare contexts. The particularly low score regarding educators' perceived preparedness to use AI tools

(mean=2.41) mirrors Oluwadiya et al.'s (2023) Nigerian study, where only 11.2% of medical professionals reported receiving AI training. This persistent training gap across multiple Nigerian studies indicates systemic deficiencies in continuing professional development programs for healthcare educators regarding emerging technologies. The moderate concern about AI replacing human judgment (mean=2.39) contrasts somewhat with Onu et al.'s (2017) findings regarding AI adoption in Nigerian neonatal care, suggesting that nursing educators may be more protective of human-centric care approaches than clinicians working in specialized technical areas.

The strong support for including AI in nursing curricula (mean=3.84) aligns with global trends identified in Mousavi Baigi et al.'s (2023) systematic review, which found increasing recognition of AI's educational value across healthcare disciplines. However, the significant standard deviations (ranging from 0.71 to 1.14) across various items indicate substantial opinion variability among educators. This dispersion particularly emerges in responses about AI replacing human roles (SD=1.14) and ethical concerns (SD=0.97), suggesting polarized views on these contentious issues. Such variability echoes findings from Swed et al.'s (2022) Syrian study, where healthcare professionals displayed wide-ranging attitudes depending on their prior AI exposure and technological literacy. The current study's results collectively suggest that while nursing educators recognize AI's potential benefits, successful implementation in Akwa Ibom State will require addressing ethical concerns through robust regulatory frameworks, bridging training gaps through targeted professional development programs, and carefully managing the transition to AI-augmented nursing practice to maintain the humanistic aspects of patient care. These findings contribute to the growing body of African literature on healthcare AI adoption while highlighting the need for context-specific implementation strategies that account for local resource constraints and professional concerns.

The significant differences in opinions about AI inclusion across nursing educator cadres ($F[3,96]=5.83$, $p=0.001$) reveal a distinct hierarchy of technological acceptance that warrants careful examination. Lecturers (M=3.92) and clinical instructors (M=3.78) demonstrated markedly more favorable attitudes toward AI adoption compared to professors (M=3.12), a pattern that aligns with but extends beyond similar findings in Oluwadiya et al.'s (2023) Nigerian study, where junior medical professionals showed greater AI acceptance than their senior counterparts. This generational divide may be attributed to several interrelated factors: younger educators' greater digital nativity, their more recent exposure to technology-integrated pedagogical approaches during training, and potentially different professional priorities that emphasize efficiency-enhancing tools. The particularly strong enthusiasm among clinical instructors suggests that hands-on patient care experience may foster appreciation for AI's practical benefits in clinical decision support and workflow optimization, a phenomenon observed in Bellemo et al.'s (2019) study of AI implementation in Zambian diabetic retinopathy screening.

The resistance among professors (M=3.12) merits particular scrutiny as it reflects deeper professional dynamics. This skepticism may stem from legitimate concerns about AI's potential to

disrupt traditional nursing epistemologies and pedagogical approaches that emphasize humanistic care. Professors, as custodians of nursing knowledge and values, may perceive AI as threatening the profession's core identity - a concern documented in Mahomed's (2018) exploration of AI's ethical implications in South African healthcare. The significant difference between lecturers and professors ($p=0.003$) suggests an experience-related curvilinear relationship where mid-career professionals (lecturers) exhibit peak enthusiasm, while early-career instructors and late-career professors show more caution. This pattern partially contradicts Jocelyn Chew and Achananuparp's (2022) international review which found generally linear age-related declines in AI acceptance, indicating that Nigerian nursing education may have unique professional dynamics influencing technology adoption.

The non-significant difference between lecturers and clinical instructors ($p=0.214$) despite their different roles suggests that factors beyond job description influence AI perceptions. Both groups likely share common characteristics such as heavier teaching loads and more direct student interaction, which may make them more receptive to tools promising workload reduction and enhanced teaching effectiveness. This finding expands upon Melendez et al.'s (2017) observations about technology adoption patterns among healthcare educators in Tanzania, highlighting how operational demands can shape technology attitudes independently of seniority. This complexity mirrors findings from Swed et al.'s (2022) Syrian study where professional factors interacted with individual characteristics to shape AI perceptions.

The study's cadre-based findings have important implications for AI implementation strategies in nursing education. The enthusiasm of lecturers and clinical instructors suggests they could serve as champions for pilot programs and peer training initiatives, while the skepticism among professors underscores the need for targeted engagement with senior faculty to address concerns and demonstrate AI's alignment with nursing values. This approach would be consistent with Owoyemi et al.'s (2020) recommendations for staged AI adoption in African healthcare settings. The results also highlight the importance of developing cadre-specific training programs that acknowledge differing concerns and competencies - an approach supported by Baigi et al.'s (2023) review of health professional education needs. Ultimately, these findings contribute to a growing recognition that successful AI integration in nursing education requires nuanced understanding of professional hierarchies and careful change management strategies that respect the wisdom of experienced educators while harnessing the enthusiasm of junior faculty.

These findings suggest a generational or experiential divide in technology acceptance, where junior educators demonstrate greater openness to AI implementation than their senior counterparts. The non-significant difference between lecturers and clinical instructors implies that hands-on clinical roles may foster similar attitudes toward technological innovation. The results highlight the need for targeted faculty development programs that address cadre-specific concerns, particularly among senior nursing educators who may require more evidence of AI's practical benefits and ethical safeguards in clinical education settings.

The striking institutional disparities in AI acceptance ($F[3,96]=7.42$, $p<0.001$) reveal how organizational ecosystems shape technology adoption in nursing education. Private hospital educators' significantly higher enthusiasm ($M=4.02$) compared to government hospital counterparts ($M=3.24$) mirrors the resource-innovation paradox consistently observed across African healthcare systems, as documented in Owoyemi et al.'s (2020) pan-African study of AI readiness. This gap likely stems from private institutions' greater financial flexibility to invest in emerging technologies, leaner bureaucratic structures enabling faster decision-making, and competitive pressures to adopt innovative practices - factors similarly identified in Melendez et al.'s (2017) comparative study of Tanzanian and Zambian hospitals. The 0.78-point mean difference between private and government hospital educators exceeds the 0.56-point gap reported in Oluwadiya et al.'s (2023) Nigerian study, suggesting that institutional factors may exert even greater influence on AI perceptions in educational versus clinical settings. Private hospitals' typically stronger technology infrastructure and corporate partnerships likely provide their educators with more positive, hands-on AI experiences, fostering greater confidence in its applications - a phenomenon observed in Bellemo et al.'s (2019) research on successful AI implementation in Zambian diabetic retinopathy screening programs.

University hospital educators' intermediate position ($M=3.85$) reflects the unique dual mission of academic medical centers, where research imperatives may drive AI interest while bureaucratic constraints limit implementation. This aligns with Jocelyn Chew and Achananuparp's (2022) finding that academic clinicians often show theoretical support for AI while facing practical adoption barriers. The non-significant difference between university hospitals and colleges of nursing ($p=0.156$) suggests that academic mission may outweigh institutional type in shaping AI attitudes, with both groups recognizing AI's educational potential despite differing clinical responsibilities. Government hospitals' markedly lower scores likely reflect chronic underfunding, infrastructure deficits, and workforce pressures that make new technologies seem impractical - challenges extensively documented in Mahomed's (2018) analysis of South African public healthcare constraints. The 0.61-point gap between government hospitals and colleges of nursing ($M=3.62$) indicates that even within the public sector, academic institutions may foster marginally more positive attitudes, possibly due to greater exposure to international research and educational innovations.

This finding challenges assumptions in some global literature, such as Swed et al.'s (2022) Syrian study that emphasized individual over organizational factors in technology acceptance. The current results suggest that in resource-constrained environments like Nigeria, institutional characteristics may outweigh personal factors due to their direct impact on implementation feasibility. The particularly low SD in private hospitals (0.65) versus government hospitals (0.93) indicates more uniform enthusiasm where resources enable consistent technology exposure, contrasting with the polarized views in resource-starved public institutions where only certain departments or individuals may have AI experience. This institutional stratification of AI readiness

mirrors patterns observed in Robinson's (2020) Nigerian study of radiology practices, where private centers led in AI adoption despite serving smaller patient populations.

These findings have crucial implications for Nigeria's AI integration strategy in nursing education. The results suggest that blanket AI implementation policies may fail unless they account for stark institutional disparities in resources and technological maturity. A tiered approach recognizing institutional readiness levels - as proposed in Mousavi Baigi et al.'s (2023) framework for health professional education - could be more effective. Private institutions could pioneer AI integration models, university hospitals could focus on research and curriculum development, while government hospitals might initially concentrate on basic digital literacy. This graduated strategy would acknowledge the 0.78-point acceptance gap while progressively building system-wide capacity, addressing concerns raised in Onu et al.'s (2017) Nigerian study about equitable technology distribution. The strong institutional effects also highlight the need for policy interventions that address structural barriers in public healthcare education, suggesting that individual training programs alone cannot overcome systemic constraints identified in this research.

These findings likely reflect differences in resource availability, organizational culture, and exposure to technological innovation across institution types. Private hospitals, typically more agile in adopting new technologies, appear to foster greater AI acceptance among educators. The relative skepticism in government hospitals may stem from infrastructural limitations or bureaucratic constraints. The intermediate position of colleges of nursing suggests academic settings may balance innovation with pedagogical caution. These institutional disparities highlight the need for tailored implementation strategies that consider organizational contexts when introducing AI in nursing education and practice.

Conclusion

This study explored the opinions of nursing educators in Akwa Ibom State regarding the inclusion of artificial intelligence (AI) in nursing services. The findings reveal a general acceptance of AI, particularly for improving diagnostic accuracy, reducing workload, and enhancing nursing education. However, concerns about ethical implications, inadequate training, and fears of AI replacing human judgment highlight key barriers to adoption. Significant differences in opinions were observed based on educators' cadre and institution of practice, with junior educators and those in private hospitals showing greater enthusiasm compared to senior educators and those in government institutions. These disparities underscore the influence of generational, experiential, and organizational factors in shaping AI acceptance. The study contributes to the growing discourse on AI in African healthcare, emphasizing the need for context-sensitive strategies to facilitate AI integration while addressing ethical, training, and infrastructural challenges.

Recommendations

1. Nursing Education Institutions & Regulatory Bodies should integrate AI literacy into nursing curricula, ensuring that both theoretical and practical training modules address AI

applications in diagnostics, patient monitoring, and workflow optimization. They should develop continuing professional development (CPD) programs to upskill educators, particularly senior faculty and those in government institutions, to bridge the training gap and reduce resistance to AI adoption.

2. Hospital Administrators (Especially in Government Hospitals) should invest in AI infrastructure and pilot programs to demonstrate its benefits in real-world clinical settings, thereby fostering acceptance among skeptical educators and practitioners. They should establish partnerships with private hospitals and tech firms to facilitate knowledge transfer and resource sharing, leveraging the enthusiasm of private-sector educators as change agents.
3. Policymakers & Healthcare Planners should formulate ethical guidelines and regulatory frameworks to address concerns about data privacy, algorithmic bias, and accountability in AI-driven healthcare. They should allocate funding for AI initiatives in public healthcare institutions, prioritizing underserved regions like Akwa Ibom State to ensure equitable technological advancement.
4. AI Developers & Researchers should design user-friendly, context-appropriate AI tools tailored to the needs of nursing educators and low-resource settings, emphasizing collaboration rather than replacement of human roles. They conduct joint research with nursing institutions to evaluate AI's impact on education and patient outcomes, providing evidence to alleviate skepticism and guide implementation.

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