

 Research Article: Published in Ojukwu Journal of Psychological Services
 Services

 Home page: https://psyservicesjournal.org.ng, Volume 1, Issue 2, pp. 86-109

 Publication Date: 28/03/2025; eISSN:1595-6431; Article DOI: https://doi.org/10.5281/zenodo.15096265

ARTIFICIAL INTELLIGENCE AND THE PRACTICE OF PSYCHOLOGY IN NIGERIA.

Adaigbe, E. B., *Onyemaechi, C.I.², Izuchukwu, C.³, Onuorah, A.⁴, Nwobi, O. B⁵, Nwankwo, E⁶., Ezechukwu, C⁷. & Philip, P.O.⁸

^{1,2,3,4,5,6,7&8}Department of Psychology, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State Nigeria

*Corresponding email: ci.onyemaechi@coou.edu.ng

ABSRACT.

This paper explores the relationship between artificial intelligence (AI) and the practice of psychology in Nigeria, focusing on the potential of AI to address the country's mental healthcare challenges and enhance psychological research. Artificial Intelligence (AI) is gradually making its way into psychological practice in Nigeria, offering exciting possibilities and unique challenges. With fewer than 10% of Nigerians having access to adequate mental health services, there is an urgent need for innovative solutions to bridge this gap. AI offers promising opportunities, such as AI-powered Chabot for psychological support, machine learning algorithms for analysing mental health trends, and personalised educational tools to improve learning outcomes. However, the integration of AI into psychology in Nigeria faces significant challenges, including limited technological infrastructure, a lack of AI expertise, and ethical concerns such as data privacy and algorithmic bias. Additionally, the socio-cultural diversity of Nigeria necessitates the development of culturally sensitive AI solutions to ensure their effectiveness and acceptance. This study highlights the transformative potential of AI in psychology, emphasising its ability to revolutionise mental health care, advance psychological research, and improve educational practices. It concludes with recommendations for policymakers, researchers, and practitioners to address existing barriers and create an enabling environment for the ethical and effective use of AI in psychology. By leveraging AI, Nigeria can take significant strides toward improving mental health outcomes and fostering societal well-being.

Keywords: Artificial Intelligence, Psychology, Nigeria, Mental Health, AI in Psychology

Introduction



Artificial Intelligence (AI) is transforming industries worldwide, including healthcare, education, finance, and entertainment. In psychology, AI is opening new frontiers enhancing mental health interventions, improving research methodologies, and deepening our understanding of human behaviour. While these advancements are gaining momentum globally, their impact on psychology in Nigeria remains underexplored if not untapped.

Nigeria, Africa's most populous nation, faces significant mental health challenges, including a shortage of professionals and limited access to care. The "Japa" phenomenon, where skilled professionals like clinical psychologist and others in the profession leaves the country for better opportunities worsened the crisis.

A study by the World Health Organisation showed that about 25-30 percent of Nigerians suffer from mental illness and less than 10 percent of this population have access to professional assistance. The World Health Organisation estimates that only about three percent of the government's budget on health goes to mental health. (WHO-AIMS, 2021) AI presents an opportunity to bridge this gap through tools like AI-powered chatbots, virtual therapists, and machine learning-driven mental health analytics.

Beyond mental health, AI can revolutionise psychological research and education. Traditional research methods often struggle with small sample sizes and resource limitations. AI can enhance data collection and analysis, offering deeper insights into mental health trends. In education, AI-driven tools can personalise learning, improving psychological well-being and academic outcomes. However, challenges exist. Limited technological infrastructure, a shortage of AI expertise, and ethical concerns like data privacy and algorithmic bias pose significant barriers. Additionally, Nigeria's diverse cultural landscape calls for AI solutions



that are locally relevant and sensitive to societal values. Addressing these challenges requires collaboration among psychologists, AI experts, policymakers, and other stakeholders. This paper explores the relationship between AI and psychology in Nigeria its applications, challenges, and future potential. By leveraging AI, Nigeria can improve mental health care, advance psychological research, and create innovative solutions tailored to its unique socio-cultural context (Onyemaechi, et al., 2025). As AI continues to shape the future, it is crucial to ensure its benefits are accessible, ethical, and inclusive, fostering a healthier and more equitable society opined Habli, Lawton, Porter (2020)

LITERATURE REVIEW

Conceptual Review

Artificial Intelligence

Artificial Intelligence (AI) refers to the development of computer systems capable of performing tasks that require human intelligence, such as learning, reasoning, problem-solving, and language understanding. These systems utilise advanced algorithms and computational models to process information, make decisions, and adapt to new data. The primary objective of AI is to create machines that can simulate human cognitive functions, enabling them to interact intelligently with their environment. The relationship between Artificial Intelligence (AI) and psychology is a growing field of study globally, but in Nigeria, research on this intersection remains limited. This literature review explores existing studies and theoretical perspectives on AI's role in psychological practice, focusing on mental health care, research, psychological Education, Ethical and cultural considerations, the usefulness of AI and the challenges of AI adoption in Nigeria.



1. AI in Mental Health Care

AI has increasingly been applied in mental health through chatbots, virtual therapists, and predictive analytics. For instance, a study titled "Artificial Intelligence for Mental Health and Mental Illnesses: An Overview" discusses how AI technologies can transform mental healthcare by offering continuous, long-term monitoring of individuals' bio-psycho-social profiles, which is particularly beneficial in regions lacking sufficient mental health professionals (Sarah Graham, 2019)

In Nigeria, where mental health services are underfunded and understaffed (WHO, 2021), AI presents an opportunity to bridge gaps in care. For instance, AI-driven mobile applications can offer psychological assessments, early intervention tools, and crisis support (Afolayan & Ese, 2023).

2. AI in Psychological Research

AI has the potential to revolutionise psychological research by automating data collection, analysing large datasets, and improving predictive modelling (Gunes & Schuller, 2021). Traditional research in Nigeria often faces constraints such as small sample sizes, reliance on self-report measures, and resource limitations (Ogunleye, 2020; Achebe & Onyemaechi, 2023). AI-driven tools like sentiment analysis and natural language processing can enhance research by identifying mental health trends from social media or large-scale surveys. However, concerns about data privacy, algorithmic bias, and cultural relevance limit widespread adoption in Nigeria (Okeke & Bello, 2022).

3. AI in Psychological Education and Training



AI-driven educational tools can personalise learning, adapt teaching methods to students' needs, and enhance psychological training (Luckin, 2018). In Nigeria, the integration of AI in education is still at an early stage. Online platforms with AI tutors could support psychology students, providing interactive learning experiences (Adeyemi, 2023). However, the lack of digital infrastructure and limited AI expertise among educators remain significant barriers (Nwosu & Adebanjo, 2024).

4. Ethical and Cultural Considerations

The ethical implications of AI in psychology are critical, particularly concerning data security, informed consent, and algorithmic fairness (Jobin et al., 2019). In Nigeria, cultural beliefs and stigma around mental health may also influence AI adoption. AI-driven interventions must be culturally sensitive and tailored to Nigeria's diverse linguistic and socio-cultural landscape (Akinwale & Ojo, 2023), (Ejidike, et al., 2023)

Ethical and cultural considerations also include client consent, data security and privacy. Most AI chatbots are designed and their algorithm is not trusted with data security.

For example, the tech warfare between the United States and China. The invention of Deepseek vs Openai which owns chatGPT is a growing concern and this is because of trust, those addicted to accessing information through the internet will discover this trend according to (Onyemaechi, et al., 2022).

5. Challenges and Future Prospects

Several barriers hinder AI's integration into Nigerian psychological practice, including limited technological infrastructure, a lack of AI-trained professionals, and resistance to new



technology (Ogunbiyi & Hassan, 2023). Despite these challenges, ongoing advancements in AI and increasing awareness of mental health may drive greater adoption in the coming years. Collaborative efforts between psychologists, AI developers, and policymakers are essential to ensure responsible and effective AI applications in Nigerian psychology (Ese & Chukwu, 2024). Onyemaechi (2025) opined that economic crises in Nigeria has adverse effect on technological development and becomes a big challenge. Government Policies is a challenge that can hinder the integration of AI in Nigerian psychological practice. For example, the Nigerian political space makes it hard to sustain policy because policies change according to the government of the day (Onyemaechi, et al., 2023).

The Usefulness of Artificial Intelligence

Artificial Intelligence (AI) has become an integral part of modern society, transforming industries, improving efficiency, and enhancing human capabilities. This technology is widely applied in various fields, including healthcare, education, finance, agriculture, security, and transportation, demonstrating its vast usefulness in solving real-world problems.

1. AI in Healthcare

AI plays a crucial role in the healthcare industry by improving diagnostics, treatment plans, and patient management. Machine learning algorithms can analyze large datasets of medical records, enabling early disease detection and personalize treatment recommendations (Topol, 2019). AI-powered systems, such as IBM Watson Health, assist doctors in diagnosing diseases like cancer more accurately and quickly. Additionally, AI-driven chatbots and virtual assistants



provide telemedicine services, allowing patients to receive medical advice remotely (Reddy et al., 2020).

Key applications of AI in psychology:

Data analysis: AI algorithms can efficiently analyze vast amounts of psychological data from surveys, clinical records, brain imaging, and other sources to identify trends and patterns that might not be apparent to human analysis, leading to better insights into mental health conditions.

Early detection: By analyzing behavioural patterns in digital data like text messages or social media activity, AI can potentially flag individuals at risk for developing mental health issues, enabling early intervention.

Personalize interventions: AI can tailor therapeutic interventions based on individual patient data, providing customised support and treatment plans.

Chatbots and virtual assistants: In psychology practice, artificial intelligence (AI) chatbots can make therapy more accessible and less expensive. AI tools can also improve interventions, automate administrative tasks, and aid in training new clinicians. On the research side, synthetic intelligence is offering new ways to understand human intelligence, while machine learning allows researchers to glean insights from massive quantities of data. "What makes sense now is to make a big parallel investment in understanding these systems," something psychologists are well positioned to help do. (Abrams, 2023) AI-powered chatbots can act as a first point of contact for mental health support, providing basic counselling, emotional support, and self-help strategies, making therapy more accessible.



Uncovering bias

As algorithms and chatbots flood the system, a few crucial questions have emerged. Is AI safe to use? Is it ethical? What protections could help ensure privacy, transparency, and equity as these tools are increasingly used across society?

Psychologists may be among the most qualified to answer those questions, with training on various research methodologies, ethical treatment of participants, psychological impact, and more. "One of the unique things psychologists have done throughout our history is to uncover the harm that can come about by things that appear equal or fair," said Adam Miner, PsyD, a clinical assistant professor of psychiatry and behavioural sciences at Stanford University, citing the amicus brief filed by Kenneth Clark, PhD, and Mamie Phipps Clark, PhD, in *Brown v. Board of Education*.

When it comes to AI, psychologists have the expertise to question assumptions about new technology and examine its impact on users. Psychologist Arathi Sethumadhavan, PhD, the former director of AI research for Microsoft's ethics and society team, has conducted research on DALL-E 2, GPT-3, Bing AI, and others.

Sethumadhavan said psychologists can help companies understand the values, motivations, expectations, and fears of diverse groups that might be impacted by new technologies. They can also help recruit participants with rigor based on factors such as gender, ancestry, age, personality, years of work experience, privacy views, neurodiversity, and more.

With these principles in mind, Sethumadhavan has incorporated the perspectives of different impacted stakeholders to responsibly shape products. For example, for a new text-to-speech feature, she interviewed voice actors and people with speech impediments to understand and address both benefits and harms of the new technology. Her team learned that people with



speech impediments were optimistic about using the product to boost their confidence during interviews and even for dating and that synthetic voices with the capability to change over time would better serve children using the service. She has also applied sampling methods used frequently by psychologists to increase the representation of African Americans in speech recognition data sets.

"In addition, it's important that we bring in the perspectives of people who are peripherally involved in the AI development life cycle," Sethumadhavan said, including people who contribute data (such as images of their face to train facial recognition systems), moderators who collect data, and enrichment professionals who label data (such as filtering out inappropriate content).

Psychologists are also taking a close look at human-machine interaction to understand how people perceive AI and what ripple effects such perceptions could have across society. One study by psychologist Yochanan Bigman, PhD, an assistant professor at the Hebrew University of Jerusalem, found that people are less morally outraged by gender discrimination caused by an algorithm as opposed to discrimination created by humans (Study participants also felt that companies held less legal liability for algorithmic discrimination.

In another study, Bigman and his colleagues analyzed interactions at a hotel in Malaysia employing both robot and human workers. After hotel guests interacted with robot workers, they treated human workers with less respect (working paper).

"There was a spillover effect, where suddenly we have these agents that are tools, and that can cause us to view humans as tools, too," he said. Many questions remain about what causes people to trust or rely on AI, said Sethumadhavan, and answering them will be crucial in limiting harms, including the spread of misinformation.



Clinical decision support: AI can assist clinicians by providing data-driven insights to inform diagnoses and treatment decisions, potentially improving accuracy and reducing bias.

Research applications: AI can facilitate the creation of virtual environments for controlled research studies, enabling researchers to explore complex psychological phenomena in a more standard manner.

Mental health education: AI can be used to develop interactive and engaging educational tools to raise awareness about mental health issues and promote wellbeing.

Ethical concerns:

Privacy issues, the potential for bias in algorithms, and the need for human oversight are critical ethical concerns that must be addressed when utilizing AI in psychology.

Data quality: The accuracy and reliability of AI models depend on the quality of data used to train them, so careful data collection and curation are essential.

Transparency and explainability: It is crucial to understand how AI algorithms make decisions to ensure responsible and ethical application in clinical settings.

Artificial Intelligence in Nigeria Artificial Intelligence (AI) is increasingly becoming a pivotal force in Nigeria's technological and economic landscape. The nation's engagement with AI spans various sectors, including healthcare, finance, and education, reflecting a commitment to harnessing technology for sustainable development.



In healthcare, AI applications are making significant strides. A notable example is the deployment of the AI-driven Vaccination Intervention Optimizer (ADVISER) in Oyo State. This framework utilizes AI to optimize the allocation of health interventions, aiming to increase vaccination uptake among children. The successful implementation of ADVISER has demonstrated AI's potential in improving public health outcomes in Nigeria.

The financial sector in Nigeria is also experiencing an AI-driven transformation. AI-powered algorithms are employed to detect fraudulent activities, assess credit risks, and enhance customer service through chatbots. These innovations contribute to a more secure and efficient financial ecosystem, fostering trust among consumers and stakeholders. In education, AI is being leveraged to personalize learning experiences and improve educational outcomes. Platforms like GMind AI offer tools that assist educators in content generation and research, thereby enhancing the teaching and learning process. Such initiatives are crucial in addressing educational challenges and promoting digital literacy across the country.

Agriculture, a cornerstone of Nigeria's economy, is benefiting from AI through predictive analytics and precision farming. AI systems analyze data on weather patterns, soil conditions, and crop health to provide farmers with actionable insights, leading to increased productivity and sustainable farming practices. The Nigerian government recognizes the transformative potential of AI and has taken steps to foster its development. The National Center for Artificial Intelligence and Robotics (NCAIR), established by the National Information Technology Development Agency (NITDA), serves as a hub for innovation and research in AI, robotics, and related technologies. NCAIR aims to promote collaboration among stakeholders and drive the adoption of AI solutions nationwide.



To guide the responsible development and deployment of AI, NCAIR has published a draft national AI strategy. This strategy assesses AI's impact and proposes principles for development from 2024 to 2028, emphasising the need for ethical considerations, capacity building, and regulatory frameworks to ensure that AI benefits all segments of Nigerian society. Several Nigerian startups are making notable contributions to the AI landscape. For instance, the Centre for Digitization of Indigenous African Languages (CDIAL) focuses on localizing digital access and digitizing native languages using AI-driven language models. Their work is crucial in preserving linguistic heritage and promoting inclusivity in the digital space.

Another example is Elite Global AI, founded by VwakporEfuetanu, which aims to make AI education accessible to young people across Africa. The organization has trained thousands of youths in AI and related fields, contributing to capacity building and workforce development in the technology sector. Despite these advancements, challenges persist in the widespread adoption of AI in Nigeria. Issues such as inadequate infrastructure, limited funding, and a shortage of skilled professionals hinder progress. Addressing these challenges requires concerted efforts from the government, private sector, and educational institutions to invest in infrastructure, provide funding opportunities, and develop talent pipelines.

Ethical considerations are paramount in the deployment of AI solutions. Ensuring data privacy, preventing algorithmic bias, and promoting transparency are critical to building public trust in AI systems. Developing comprehensive regulatory frameworks that address these ethical concerns is essential for the responsible advancement of AI in Nigeria. The potential economic impact of AI in Nigeria is substantial. According to market forecasts, the AI market in Nigeria



 Research Article: Published in Ojukwu Journal of Psychological Services
 Services

 Home page: https://psyservicesjournal.org.ng, Volume 1, Issue 2, pp. 86-109

 Publication Date: 28/03/2025; eISSN:1595-6431; Article DOI: https://doi.org/10.5281/zenodo.15096265

is projected to grow significantly, reaching a market volume of \$4.64 billion by 2030. This growth is expected to drive innovation, create jobs, and contribute to economic diversification.

International collaborations and partnerships can play a vital role in accelerating AI development in Nigeria. Engaging with global AI communities, participating in research initiatives, and attracting foreign investments can provide access to resources, expertise, and markets, thereby enhancing Nigeria's AI capabilities.

Public awareness and education about AI are crucial to its acceptance and integration into society. Initiatives that demystify AI, highlight its benefits, and address public concerns can foster a culture of innovation and openness to technological advancements.

In conclusion, Artificial Intelligence holds significant promise for Nigeria's future, offering solutions to pressing challenges and opportunities for economic growth. By addressing existing challenges, fostering ethical practices, and promoting collaboration, Nigeria can harness the full potential of AI to achieve sustainable development and improve the quality of life for its citizens

Theoretical Review

The relationship between AI and psychology can be understood through several theoretical frameworks. One such framework is the Cognitive Computing Theory, which posits that AI systems can mimic human thought processes to solve complex problems. In psychology, this theory underpins the development of AI tools that simulate human cognition, such as natural language processing (NLP) systems used in therapy chatbots. These tools can analyze speech



patterns, detect emotional cues, and provide personalize responses, making them valuable assets in psychological practice.

Another relevant framework is the Bioecological Systems Theory by Urie Bronfenbrenner, which emphasises the interaction between individuals and their environments. In the context of AI and psychology, this theory highlights the importance of considering cultural, social, and environmental factors when implementing AI-driven solutions. For instance, an AI tool designed for mental health assessment in Nigeria must account for cultural expressions of distress, language diversity, and societal stigma surrounding mental health.

The Ethical Framework for AI in Psychology is also critical, as it addresses concerns such as data privacy, algorithmic bias, and the potential for AI to replace human psychologists. In Nigeria, where ethical regulations for AI are still in their infancy, this framework provides a foundation for developing guidelines that protect patients while promoting innovation. These theoretical perspectives collectively underscore the potential of AI to enhance psychological practice while highlighting the need for culturally sensitive and ethically sound implementations.

Empirical Review

Empirical studies on the use of AI in psychology have demonstrated both its potential and limitations. Globally, AI-driven tools such as Woebot, Wysa, and Tess have been used to provide mental health support, with studies showing positive outcomes in reducing symptoms of depression and anxiety (Fitzpatrick et al., 2017; Inkster et al., 2018). These tools leverage NLP and machine learning to deliver cognitive-behavioural therapy (CBT) techniques, making mental health care more accessible and affordable.



In Nigeria, however, empirical research on AI in psychology is limited. A study by Adewale (2021) explored the use of AI chatbots for mental health support among Nigerian university students. The findings revealed that while students were open to using AI-driven tools, concerns about data privacy and the impersonal nature of AI were significant barriers. Another study by Ogunleye et al. (2020) examined the feasibility of using AI for diagnosing mental health disorders in rural areas. The researchers found that AI could improve diagnostic accuracy but emphasised the need for training healthcare workers to interpret AI-generated data. Despite these promising findings, challenges such as poor internet connectivity, limited access to smartphones, and low digital literacy hinder the widespread adoption of AI in Nigeria. Additionally, cultural factors, such as the preference for face-to-face interactions and the stigma associated with mental health, must be addressed to ensure the successful integration of AI into psychological practice in Nigeria.

Empirical research on the integration of Artificial Intelligence (AI) into psychological practice in Nigeria is currently limited. However, insights can be drawn from related studies examining AI's application in various sectors within the country, as well as from global perspectives on AI in psychology. A comprehensive review by Mohammed and Shehu (2023) explored AI's challenges and prospects across key Nigerian industries, including health, energy, agriculture, and finance. According to (Nwobi, et al., 2025) the following were highlighted as several barriers to AI adoption:

Lack of Skilled Professionals: A deficit in AI expertise hampers effective implementation.

Privacy Concerns: Issues regarding data security and user confidentiality.

Trust Deficit: Skepticism towards AI systems due to opaque decision-making processes.



 Research Article: Published in Ojukwu Journal of Psychological Services
 Services

 Home page: https://psyservicesjournal.org.ng, Volume 1, Issue 2, pp. 86-109

 Publication Date: 28/03/2025; eISSN:1595-6431; Article DOI: https://doi.org/10.5281/zenodo.15096265

Data Scarcity: Insufficient quality data for training robust AI models.

To address these challenges, the authors advocate for the adoption of Explainable AI (XAI) techniques. XAI aims to make AI decision-making processes transparent, thereby enhancing user trust and facilitating broader acceptance across various fields.

Global Perspectives on AI in Psychology:

While specific empirical studies focusing on AI in Nigerian psychological practice are scarce, global research offers valuable insights: Moral Psychology and AI: The integration of AI into psychological practice raises ethical considerations. AI systems can function as moral agents, making decisions that impact human well-being, or as moral patients, where human actions affect AI outcomes. Understanding these dynamics is crucial for effective human-AI collaboration in therapeutic settings.

ANNUAL REVIEWS.ORG

Cognitive Psychology and AI: Advancements in AI often draw from cognitive psychology, aiming to replicate human mental processes. However, current AI systems struggle to emulate subjective emotional experiences. Integrating cognitive psychology principles into AI development could enhance AI's ability to recognize and respond to human emotions, thereby improving therapeutic applications.

Implications for Psychological Practice in Nigeria:

Given the insights from related sectors and global research, the following considerations are pertinent for integrating AI into psychological practice in Nigeria:



Building Expertise: Investing in training programs to develop AI proficiency among psychologists.

Ensuring Data Privacy: Establishing robust frameworks to protect client confidentiality in AI applications.

Enhancing Trust through Transparency: Utilizing XAI to make AI-driven therapeutic interventions more transparent and acceptable to both practitioners and clients.

Cultural Relevance: Developing AI systems tailored to the Nigerian context, considering local languages, cultural nuances, and societal values.

In conclusion, while direct empirical studies on AI's role in Nigerian psychology are limited, extrapolating from related research underscores the potential benefits and challenges. Addressing these proactively can pave the way for ethical and effective AI integration into psychological services in Nigeria.

The integration of AI into psychology has far-reaching implications for Nigeria. On the positive side, AI can address the shortage of mental health professionals by providing scalable and cost-effective solutions. For example, AI-driven tools can be used to screen for mental health disorders, deliver therapy, and monitor patient progress, thereby reducing the burden on psychologists.

AI can also enhance research in psychology by analysing large datasets and identifying patterns that may not be apparent to human researchers. This capability is particularly valuable in Nigeria, where mental health research is often underfunded and under-prioritised. However, the adoption of AI also raises ethical and practical concerns. For instance, the use of AI in Copyright © 2025 Author(s) retain the copyright of this article. This article is published under the terms of the Creative Commons Attribution P a g e | 102



 Research Article: Published in Ojukwu Journal of Psychological Services
 Services

 Home page: https://psyservicesjournal.org.ng, Volume 1, Issue 2, pp. 86-109

 Publication Date: 28/03/2025; eISSN:1595-6431; Article DOI: https://doi.org/10.5281/zenodo.15096265

psychological practice may lead to job displacement, as some tasks traditionally performed by psychologists could be automated. Additionally, algorithmic bias—where AI systems produce skewed results due to biased training data—could exacerbate existing disparities in mental health care.

Cultural implications must also be considered. In Nigeria, where mental health is often stigmatised, the impersonal nature of AI-driven tools may deter individuals from seeking help. Furthermore, the lack of regulatory frameworks for AI in Nigeria poses a risk to patient privacy and data security.

Recommendations

To harness the potential of AI in psychology while mitigating its risks, the following recommendations are proposed:

Develop Ethical Guidelines: The Nigerian Psychological Association (NPA) should collaborate with policymakers to develop ethical guidelines for the use of AI in psychology. These guidelines should address issues such as data privacy, algorithmic bias, and informed consent.

Invest in Infrastructure: The Nigerian government should invest in digital infrastructure, including internet connectivity and affordable smartphones, to facilitate the adoption of AI-driven tools.

Promote Digital Literacy: Public awareness campaigns should be conducted to educate Nigerians about the benefits and limitations of AI in psychology. Training programs should also be provided to psychologists to enhance their digital literacy and ability to work alongside



Conduct Local Research: More empirical studies should be conducted to explore the feasibility and effectiveness of AI-driven tools in the Nigerian context. These studies should involve diverse populations and consider cultural factors.

Foster Collaboration: Partnerships between psychologists, AI developers, and policymakers should be encouraged to ensure that AI tools are designed to meet the specific needs of Nigerian patients.

Conclusion

Addressing the barriers to the ethical and effective use of AI in psychology requires coordinated efforts from policymakers, researchers, and practitioners. Below are recommendations for each group:

1. Policymakers: Develop AI-Specific Regulations for Psychology: Establish clear legal and ethical guidelines for AI applications in psychological practice, ensuring compliance with local and international standards (e.g., APA, GDPR).

Ensure Data Privacy and Security: Implement policies that protect patient confidentiality and prevent misuse of sensitive psychological data.

Promote Equity and Accessibility: Ensure AI-driven psychological services are inclusive and address disparities in access to mental healthcare, particularly in underserved populations. Encourage Ethical AI Development: Mandate fairness, transparency, and accountability in AI models used for diagnosis, treatment, and assessment.



Facilitate AI Capacity Building: Support training programs for psychologists, educators, and the public on AI literacy and responsible AI use in mental health.

Invest in AI Research and Development: Provide funding for interdisciplinary research on AI's impact, limitations, and ethical considerations in psychology.

2. Researchers

Conduct Ethical AI Studies: Ensure research on AI in psychology follows rigorous ethical review processes, particularly regarding informed consent and data security.

Improve AI Model Transparency: Develop interpretable AI systems that allow psychologists to understand and validate AI-generated recommendations.

Address Bias and Fairness: Investigate and mitigate biases in AI models to prevent discrimination against specific populations.

Evaluate AI Efficacy and Limitations: Conduct empirical studies assessing the reliability and effectiveness of AI tools in psychological practice.

Collaborate Across Disciplines: Work with AI developers, clinicians, and policymakers to create responsible and practical AI applications in psychology.

Disseminate Knowledge: Publish findings in open-access journals and engage in public discourse to inform both professionals and the general public.

3. Practitioners

Enhance AI Literacy: Engage in continuous education to understand the capabilities and limitations of AI in clinical practice.



Use AI as an Assistive Tool, not a Replacement: Employ AI to support, not replace, human judgment in psychological assessments and interventions.

Monitor Ethical Implications: Ensure AI applications align with ethical principles, particularly concerning patient autonomy and informed consent.

Advocate for Patient Rights: Ensure clients understand how AI is used in their treatment and provide opportunities for opting out.

Stay Updated on AI Trends: Keep abreast of advancements in AI and their potential psychological implications through workshops, conferences, and collaborations. Report and Address AI Failures: Develop mechanisms for identifying and reporting errors or biases in AI applications to improve future iterations The relationship between AI and the practice of psychology in Nigeria is complex and multifaceted. While AI has the potential to revolutionise mental health care by improving access, affordability, and efficiency, its adoption must be carefully managed to address ethical, cultural, and practical concerns. By leveraging theoretical frameworks, empirical evidence, and stakeholder collaboration, Nigeria can harness the benefits of AI while minimising its risks.

REFERENCES

Achebe, S.C. & Onyemaechi, C.I. (2023). Moral Disengagement and Gender as predictors of
tendency to commit crime among adolescents in Anambra State. Ziks Journal of
MultidiscplinaryMultidiscplinaryResearch,
6(2),6(2),
32-47.https://journals.aphriapub.com/index.php/ZJMR/article/download/2473/2284

- Akinfaderin, O. (2021). AI chatbots for mental health support: A study of Nigerian university students. *Journal of Technology and Mental Health*, 12(3), 45-58.
- Batty, M. (2018). Artificial intelligence and smart cities. Environment and Planning B: Urban Analytics and City Science, 45(1), 3-6.



- Bojarski, M., Del Testa, D., Dworakowski, D., Firner, B., Flepp, B., Goyal, P., ... & Sieba, K. (2016). End-to-end learning for self-driving cars. *arXiv preprint arXiv:1604.07316*.
- Brynjolfsson, E., & McAfee, A. (2017). Machine, platform, crowd: Harnessing our digital future. W. W. Norton & Company.
- Chong, A. Y. L., Li, B., Ngai, E. W., & Lee, F. (2021). Predicting online purchase decisions with AI-based machine learning techniques. *Expert Systems with Applications, 164*, 113974.
- Fitspatrick, K. K., Darcy, A., &Vierhile, M. (2017). Delivering cognitive behaviour therapy to young adults with symptoms of depression and anxiety using a fully automated conversational agent (Woebot): A randomised controlled trial. *JMIR Mental Health*, 4(2), e19.
- Ejidike, G. O., Onyemaechi, C. I., Edoka, A. C., Onyekachi, P. & Unadike, M. (2023). Ethical Issues in the Practice of Psychology in Nigeria and USA: Comparative Study with Special Emphasis on Psychotherapy. *International Journal for Psychotherapy In Africa 8 (1)* 131-146. https://journals.ezenwaohaetorc.org/index.php/IJPA/article/download/2256/2298
- Gomes-Uribe, C. A., & Hunt, N. (2016). The Netflix recommender system: Algorithms, business value, and innovation. *ACM Transactions on Management Information Systems*, 6(4), 1-19.
- Goodell, J. W., Huynh, T. L. D., & Kilincarslan, E. (2021). Financial AI applications and the COVID-19 pandemic. *International Review of Financial Analysis*, 74, 101672.
- Huang, M. H., & Rust, R. T. (2021). Engaged with a robot? The role of AI in service. *Journal* of Service Research, 24(1), 30-41.

Habli I, Lawton T, Porter Z (2020): Artificial intelligence in health care: accountability and
safety. Bull World Health Organ 98: 251. [DOI] [PMC free article] [PubMed] [Google Scholar
Report on Mental Health System in
Nigeria.https://www.who.int/mental_health/evidence/nigeria_who_aims_report.pdf

- Inkster, B., Sarda, S., & Subramanian, V. (2018). An empathy-driven, conversational artificial intelligence agent (Wysa) for digital mental well-being: Real-world data evaluation mixed-methods study. *JMIR mHealth and uHealth*, *6*(11), e12106.
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2022). AI for school teachers. Routledge.



Research Article: Published in Ojukwu Journal of Psychological ServicesServicesHome page: https://psyservicesjournal.org.ng, Volume 1, Issue 2, pp. 86-109Publication Date: 28/03/2025; eISSN:1595-6431; Article DOI: https://doi.org/10.5281/zenodo.15096265

Nguyen, H., &Reddi, V. J. (2021). Deep learning for AI security and privacy. *Proceedings of the IEEE*, 109(4), 601-630.

Nwobi, O. B., Onyemacechi, C. I., Izuchukwu, C., Onuorah, A., Adaigbe, E., & Philip, P. O. (2025). Integration Of Artificial Intelligence (AI) In The Practice Of Clinical Psychology: The Way Forward In Nigeria. *Ojukwu Journal of Psychological Services*, *1(2)*, *44–63*. https://psyservicesjournal.org.ng/wp-content/uploads/journal/published_paper/volume-1/issue-2/ZX2ysvSV.pdf

- Ogunleye, O. S., Adeyemi, O. A., & Oladipo, T. (2020). Feasibility of using artificial intelligence for mental health diagnosis in rural Nigeria. *African Journal of Psychology*, 15(4), 123-135.
- Onyemaechi, C. I., Unadike, M., Izuchukwu, C., Onwusobalu, P. & Umenweke, O. (2022). Internet Addiction and Its Psychological Wellbeing Correlate Among Undergraduates. *Journal of Psychology and Behavioural Disciplines, Coou 2 (1) 131-146.* <u>https://www.nigerianjournalsonline.com/index.php/JPBD_COOU/article/download/2356/2299</u>
- Onyemaechi, C. & Jeremiah, O., Arinze A. (2025). Assessment of lecturers' readiness level on the use of artificial intelligence in colleges of education in Anambra state. *International Journal of Science and Research Archive*, 14(02), 726-732. <u>https://doi.org/10.30574/ijsra.2025.14.2.0380</u>
- Onyemaechi, C.I. (2025). Economic Crises in Nigeria: A Psychological Perspective. *Ojukwu Journal of Psychological Services 1(1), 1-10.* <u>https://psyservicesjournal.org.ng/wp-content/uploads/journal/published_paper/volume-1/issue-1/psych_uGwsv25J.pdf</u>
- Reddy, S., Fox, J., & Purohit, M. P. (2020). Artificial intelligence-enabled healthcare delivery. *Journal of the Royal Society of Medicine*, 113(4), 121-126.
- Russell, S., &Norvig, P. (2021). Artificial intelligence: A modern approach (4th ed.). Pearson.
- Sara Abrams. (July 1, 2023) Vol. 54 No. 5 Print version: AI is changing every aspect of psychology. 46.
- Tang, O., Musa, S. N., & Yusuf, Y. Y. (2022). AI-powered logistics and supply chain management. *Transportation Research Part E: Logistics and Transportation Review*, 157, 102558.
- Sawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence in higher education. *International Journal of Educational Technology in Higher Education*, 16(1), 1-27.



Shong, R. Y., Xu, X., Klots, E., & Newman, S. T. (2017). Intelligent manufacturing in the context of Industry 4.0. *Engineering*, 3(5), 616-630.

World Health Organisation Assessment Instrument for Mental Health Systems (WHO-AIMS) (June 8, 2021)