

DIGITAL TOOLS AND THE MODERNIZATION OF COUNSELLING PRACTICES IN THE NIGERIAN EDUCATIONAL SECTOR

*AKINTOYE, Victor Oluwole¹ & Odei, Moses Adeiza PhD²

¹Department of Educational Foundations, Ajayi Crowther University, Oyo.

*Corresponding author: vo.akintoye@acu.edu.ng; venerableakintoye@gmail.com
+2348037455075; ORCID ID: 0009-0000-1851-6740.

²Department of, Religion and Development Studies, Faculty of Humanities
venodei4real2019@gmail.com; am.odei@acu.edu.ng
+2348038095140; +2349030792304. ORCID ID: 0009-0005-1151-6445

ARTICLE INFO

Article No.: 0243

Accepted Date: 05/03/2026

Published Date: 30/03/2026

Type: Research

ABSTRACT

Counselling services are essential to the Nigerian educational system, supporting students' academic, emotional, social, and career development, yet traditional face-to-face models have struggled to meet growing demands amid rapid digital transformation. This study examines the role of digital tools in modernizing counselling practices within Nigeria's educational sector, exploring how they can enhance service delivery, the barriers to their adoption, and their alignment with national development goals. Grounded in Davis's Technology Acceptance Model, the study adopts a qualitative approach, drawing on document analysis and a review of peer-reviewed literature, policy documents, and institutional reports. Digital tools, such as tele-counselling platforms, mobile applications, electronic record systems, and AI-driven chatbots, offer significant potential to expand access, improve efficiency, and increase student engagement. However, adoption is constrained by infrastructural deficits, unstable power supply, limited digital literacy among counsellors, and the absence of clear ethical guidelines. Perceived usefulness and ease of use, as framed by the Technology Acceptance Model, are critical determinants of counsellors' willingness to integrate these technologies. Strategic investment in ICT infrastructure, continuous professional development for counsellors, and the formal integration of digital counselling into educational policies are essential. These measures will enable counselling services to become more proactive, data-driven, and aligned with the Sustainable Development Goals (SDGs 3 and 4) and Nigeria's national education objectives.

Keywords: Counselling Practices, Digital Tools, Nigerian Educational Sector, Modernizing Counselling Practices

Introduction

Globally, counselling occupies an indispensable place within the educational system, supporting students' academic success, emotional stability, social adjustment, and career development. In Nigeria, school counselling evolved alongside educational reforms as a direct response to the changing psycho-social needs of society. Historically, modern counselling in Nigerian schools traces its roots to 1959, when Catholic Reverend Sisters at St. Theresa's College, Ibadan, recognized the need to provide students with adequate knowledge about careers and the world of work in their final years of secondary education (Akinade, 2023). This led to the formation of the Careers Council in 1962 in Ibadan, with the sole aim of disseminating career information to students. This development aligned with Nigeria's post-independence economic reforms, as enshrined in the National Policy on Education (Federal Republic of Nigeria, 2014), which expanded the scope of guidance and counselling to include holistic student development.

In recent times, however, the growing complexity of students' experiences in a digital age has exposed the limitations of traditional face-to-face counselling models. The global shift toward digitalization has significantly influenced professional practices in education, healthcare, and psychological services, and digital tools such as online counselling platforms, mobile applications, email, virtual meeting software, and electronic record systems have redefined how counselling services are delivered. Platforms like Zoom and Google Meet enable synchronous interactions, while asynchronous tools such as email and chatbots provide flexibility and extended support. Within the Nigerian educational sector, these innovations present opportunities to overcome barriers of time, distance, stigma, and limited manpower that have historically constrained counselling effectiveness (Isiaka, 2024). Itasanmi (2023), in a study examining the determinants of behavioural intention among open and distance learning students in their use of digital tools and resources, asserts the widespread adoption of videoconferencing platforms for synchronous educational and counselling interactions. Akinade (2012) also indicated that digital integration can bridge the urban-rural divide, as students in rural areas often lack access to qualified counsellors due to the uneven distribution of professionals.

Despite the promise of digital tools, their integration into Nigerian educational institutions remains uneven and underexplored. The practice of counselling in Nigeria has largely remained traditional, relying on face-to-face interaction, paper-based records, and limited outreach methods, an approach that has become inadequate for addressing the complex challenges faced by students in the twenty-first century, an era defined by rapid technological advancement, globalization, and digital connectivity. In a country with an estimated population of 237.5 million people and a rapidly growing youth population of over 60 percent under the age of thirty (Worldometer, 2025), traditional counselling models struggle with scalability.

Furthermore, socioeconomic disparities mean that only about fifty percent of the population has internet access, with even lower penetration within educational settings (Christian, 2025). The aftermath of the COVID-19 pandemic accelerated the shift away from physical schooling, opening avenues for digital tools to emerge as lifelines for maintaining continuity in education and learning (Williamson, 2020). Yet the adoption of digital counselling tools in Nigeria has been slow, constrained by infrastructural deficits, limited training, and inconsistent policy implementation (Adedoyin & Kola, 2020; Uche & Okeke, 2021; Oduolowu, 2021). While several studies have focused broadly on information and communication technology (ICT) in education, fewer have specifically examined its application in counselling services within the Nigerian context.

Existing literature acknowledges the potential of ICT in education, yet gaps remain regarding its systematic integration into counselling delivery. The lived experiences of counsellors

indicate high ICT use for communication purposes and a willingness to advance their skills, though ethical issues such as internet-based risks require attention (Ayodele et al., 2022). Opportunities in the digital era include leveraging social media for outreach, but implications involve addressing cyberbullying and information overload (Popoola, Ibraheem & Yusuf, 2023). Overall, the literature underscores the transformative potential of digital tools amid contextual hurdles, calling for policy-driven integration.

This study therefore examines the role of digital tools in modernizing counselling practices and interventions in Nigeria, situating the discussion within broader educational goals and national development aspirations. Drawing on empirical evidence, the paper explores how these tools can align with Nigeria's Vision 2050 and the Sustainable Development Goals (SDGs), particularly SDG 4 on quality education and SDG 3 on good health and well-being. The introduction of artificial intelligence (AI) in counselling, through platforms such as chatbots for initial assessments, further amplifies this potential (Abubakar & Igboangbo, 2025). Ultimately, this exploration seeks to provide a nuanced understanding of digital modernization in counselling practices within the Nigerian educational sector.

Conceptual Clarifications

Digital Tools: In contemporary scholarship, digital tools refer to electronic technologies, software applications, and online platforms that enable the creation, storage, exchange, and manipulation of information in digital formats (Popoola, Ibraheem & Yusuf, 2023). Within counselling contexts, these tools are deployed to extend service reach, streamline administrative tasks, support therapeutic interventions, and enhance client engagement (Ofem et al., 2025). Their theoretical relevance lies in their capacity to transform traditional counselling from a predominantly face-to-face, paper-based practice into a flexible, data-informed, and client-centred service. For analytical clarity, digital tools in counselling can be grouped into three categories:

- i. **Communication and interaction tools:** These include video conferencing platforms (Zoom, Google Meet, Microsoft Teams), messaging applications (WhatsApp, Telegram), and email. They facilitate synchronous and asynchronous interactions, enabling counsellors to conduct virtual sessions, follow up with clients, and deliver psychoeducational content remotely (Eze, Udeh & Nwankwo, 2023).
- ii. **Assessment and intervention tools:** This category comprises digital psychometric instruments, mental health apps (such as mood trackers and CBT-based self-help modules), and AI-driven platforms. These tools support diagnostic accuracy, provide real-time data on client well-being, and offer scalable interventions (Okoko & Asagba, 2022; Christian, 2025).
- iii. **Record and data management systems:** Cloud-based storage (Google Drive, specialized software such as Therapy Notes) and electronic record systems enable secure storage, efficient retrieval, and systematic analysis of client information, thereby improving confidentiality and continuity of care (Adeyemi & Ojo, 2023).

By categorizing digital tools in this manner, their distinct functions and contributions to modern counselling practice become clearer, allowing for a more focused discussion of adoption, challenges, and ethical considerations.

Counselling Practices: Counselling practices are evidence-based, structured, and relational approaches designed to help individuals navigate emotional, personal, psycho-social, and developmental challenges. At the core of the practice is a collaborative process between counsellor and client, built on trust, active listening, and empathy, within a safe environment where clients can explore their thoughts, feelings, and behaviours without interruption or judgment. Counselling practices in educational settings typically encompass three interrelated components.

First, academic guidance helps students develop effective study skills, manage time efficiently, and select appropriate courses to optimize academic performance. Second, career development focuses on guiding individuals toward informed career choices through structured tools such as interest inventories, skills assessments, and personality tests, enabling them to identify their strengths, values, and preferences in alignment with labour market opportunities (Ekeng, 2024; Scholtz, 2024). Third, personal/social counselling addresses interpersonal conflicts, peer pressure, family dynamics, and emotional wellbeing, equipping students with resilience and coping strategies for managing anxiety, depression, and trauma.

Popoola, Ibraheem, and Yusuf (2023) observe that the integration of digital tools into school counselling enhances accessibility, confidentiality, and flexibility, particularly for young people already immersed in digital environments. Scholars have also emphasized the role of ICT in improving record-keeping, assessment accuracy, and professional collaboration among counsellors, facilitating real-time data sharing and enabling multidisciplinary teams to coordinate referrals more effectively (Don-Mark, 2025). Meta-analyses confirm that tele-counselling is as effective as in-person face-to-face sessions for mild and moderate psycho-social issues (Kingsley et al., 2025).

Modernization: Modernization in this study refers to the process of enhancing counselling services in schools through the systematic integration of contemporary technologies, the improvement of counsellor training, and the revision of policies to align with global best practices. It encompasses three interconnected dimensions: technology integration, professional capacity building, and policy reform.

First, technology integration involves the adoption of digital tools such as tele-counselling platforms, electronic record systems, and mobile applications to expand service reach, improve efficiency, and enhance client engagement. These tools enable counsellors to conduct virtual sessions, maintain secure client records, and deliver psychoeducational content beyond the confines of physical school settings (Don Mark, 2025). The adoption of such technologies also facilitates systematic data collection and analysis, supporting evidence-based interventions tailored to individual student needs. Second, professional capacity building requires updating counsellor training curricula to incorporate digital competencies. Continuous professional development programs that equip counsellors with the skills to effectively use digital tools are essential for ensuring that technology adoption translates into improved service quality (Baker et al., 2020). Hands-on workshops, demonstrations, and ongoing technical support can foster confidence and competence among practitioners, enabling them to leverage digital tools for enhanced student outcomes.

Third, policy reform entails the revision of educational policies to formally support digital counselling practices. This includes establishing guidelines for tele-counselling, ensuring data protection in line with the Nigeria Data Protection Act, and integrating digital competencies into national counselling standards (American Counselling Association, 2021; Christian, 2025). Such policy frameworks provide the necessary structure for ethical, secure, and effective digital counselling services. Ultimately, modernization aims to transform counselling from a reactive, face-to-face support system into a proactive, data-informed, and accessible service that empowers students in a rapidly changing educational landscape. By focusing on technology integration, professional development, and policy alignment, counselling services can evolve to meet the complex needs of twenty-first-century learners.

Nigerian Educational Sector: The Nigerian educational sector consists of formal institutions responsible for teaching, learning, and human capital development, including primary, secondary, and tertiary institutions under both government and private management. At independence in 1960,

Nigeria had only 120 secondary schools serving approximately 130,000 students and just two tertiary institutions, the University of Ibadan and Yaba College of Technology (Akinade, 2023). Today, the sector has expanded significantly, with over 23,000 secondary schools, more than 274 universities, 183 polytechnics, and 236 colleges of education serving a population of over 200 million people (Federal Republic of Nigeria, 2014; Worldometer, 2025). The system operates a 6-3-3-4 education structure comprising six years of primary education, three years of junior secondary, three years of senior secondary, and a minimum of four years of tertiary education.

Despite this quantitative growth, the sector faces profound challenges that directly impact counselling services. According to the Nigeria Education Management Information System (NEMIS), out of approximately 30 million children who enroll in primary school, only 10 million transitions to Junior Secondary School (JSS1), and merely six million ultimately reach senior secondary level (Christian, 2025). This dropout crisis, described by the Minister of Education as a “frightening pattern,” is driven by severe shortages of junior and senior secondary schools, long walking distances for rural learners, cost barriers, and safety concerns (Adedoyin & Kola, 2020). Furthermore, Nigeria carries one of the world’s highest burdens of out-of-school children, with estimates ranging from 13 million to 20 million, a situation exacerbated by underfunding and insecurity (Uche & Okeke, 2021).

It is within this challenging framework that counselling is embedded, particularly at secondary and tertiary levels. Counsellors play a critical role in supporting students through key transitions, such as the move from primary to secondary and secondary to tertiary education, while addressing adolescent issues including peer pressure, academic stress, mental health concerns, and career indecision (Ogunyemi & Afolabi, 2020). However, the sector’s diversity, urban versus rural, public versus private, significantly impacts digital adoption and counselling delivery. Private institutions at both secondary and tertiary levels lead in ICT integration due to better resources, while public schools, particularly in rural areas, face chronic underfunding, overcrowded classrooms, and shortages of qualified counsellors (Omeje & Eze, 2019). These disparities mean that students most in need of counselling support often have the least access to qualified personnel or digital tools, underscoring the urgency of systematic modernization efforts within the sector.

Theoretical Framework

This study is grounded in the Technology Acceptance Model (TAM), originally proposed by Fred Davis in 1989. TAM explains how users come to accept and adopt new technologies, positing that two primary factors determine technology acceptance: perceived usefulness—the degree to which an individual believes that using a particular technology would enhance their job performance, and perceived ease of use, the degree to which an individual believes that using the technology would be free of effort (Davis, 1989). These perceptions shape users’ attitudes toward technology, which in turn influence their behavioural intention and ultimately their actual usage of the system.

TAM is particularly relevant to this study because it provides a framework for understanding counsellors’ willingness to adopt digital tools in their practice within Nigerian schools. The model suggests that if counsellors perceive digital tools, such as tele-counselling platforms, mental health applications, and electronic record systems, as useful for improving their service delivery and easy to operate, they are more likely to integrate them into their counselling practices. Conversely, where counsellors view these tools as complex, time-consuming, or of limited benefit, resistance to adoption is likely to persist (Venkatesh & Bala, 2008).

Application of the Technology Acceptance Model to Digital Counselling in Nigerian Education

The Technology Acceptance Model provides a useful framework for understanding how counsellors in Nigerian schools may adopt digital tools. According to TAM, two key perceptions shape technology adoption: perceived usefulness, whether counsellors believe digital tools will improve their work, and perceived ease of use, whether they find these tools simple to operate (Davis, 1989). Where counsellors perceive tele-counselling platforms, mobile applications, and electronic record systems as both beneficial and easy to use, they are more likely to integrate them into their practice. Conversely, where tools are viewed as complex or of limited value, resistance to adoption is likely (Venkatesh & Bala, 2008).

Empirical studies from Nigeria support this framework. Owoeye and Akinwunmi (2020) found that digital platforms enhanced communication between counsellors and students, with perceived usefulness being a strong predictor of continued use. Similarly, Edeh and Uche (2022) reported that counsellors who viewed digital tools as useful and easy to operate were more likely to achieve improved student engagement and wellbeing outcomes. However, adoption remains constrained by factors such as inadequate infrastructure, insufficient training, and resistance to change, which affect both perceived usefulness and ease of use (Oko & Nwosu, 2021). Ifinedo (2012) further noted that in public sector organizations, including counselling services, these perceptual factors significantly influenced technology acceptance.

Training plays a critical role in shaping these perceptions. Continuous professional development that equips counsellors with hands-on experience and ongoing technical support can enhance perceived ease of use, while demonstrating tangible outcomes can strengthen perceived usefulness (Ojo & Oluwadare, 2021). Thus, TAM highlights that successful integration of digital tools into counselling practice requires not only infrastructure investment but also targeted training and support that address counsellors' perceptions. By understanding and responding to these perceptual determinants, policymakers and educational administrators can facilitate the modernization of counselling services across Nigerian schools.

Methodology

This study adopts a qualitative research design, which is appropriate for exploring complex social phenomena where the goal is to understand meanings, perceptions, and contextual factors rather than to measure variables or test hypotheses (Swinton & Mowat, 2016). Given that the study seeks to examine how digital tools function within counselling practices in Nigeria—a topic shaped by institutional contexts, individual perceptions, and policy environments—a qualitative approach enables deep engagement with the existing body of literature, policy documents, and empirical studies that document counsellors' experiences and the structural factors influencing technology adoption.

Data Sources and Inclusion Criteria: Data for this study were derived exclusively from secondary sources. The selection process involved a systematic review of peer-reviewed journal articles, policy documents, institutional reports, and scholarly books published between 2012 and 2025. The following inclusion criteria guided the selection:

- (a) sources had to address counselling practices, digital tools, or technology adoption within the Nigerian educational sector;
- (b) empirical studies were prioritized for their primary data on counsellors' experiences and outcomes;
- (c) policy documents and institutional reports were included for their relevance to national educational frameworks and digital integration strategies.

Sources that focused exclusively on ICT in education without explicit reference to counselling services were excluded. The final corpus comprised approximately forty-five sources, including works by Akinade (2012, 2023), Ayodele et al. (2022), Popoola, Ibraheem, and Yusuf (2023), Christian (2025), and others cited throughout this paper.

Analytical Method: The analysis followed a thematic approach, as outlined by Braun and Clarke (2006), which involves identifying, analyzing, and reporting patterns within qualitative data. The process began with repeated reading of all selected sources to achieve familiarization with the material. Initial codes were generated inductively, capturing key concepts such as “counsellor perceptions,” “infrastructure barriers,” “policy gaps,” and “digital tool types.” These codes were then grouped into broader themes through iterative review and discussion. Four main themes emerged from the analysis:

- (a) the potential of digital tools to enhance accessibility and efficiency;
- (b) the barriers of inadequate infrastructure, limited training, and policy inconsistency;
- (c) the role of counsellor perceptions (perceived usefulness and ease of use) in adoption; and
- (d) the alignment of digital counselling with national development goals. These themes form the organizational structure of the findings and discussion sections. The analysis was guided by the Technology Acceptance Model (Davis, 1989), which provided a theoretical lens for interpreting counsellors’ adoption behaviours in relation to perceived usefulness and ease of use.

Justification of Approach: A document-based qualitative approach is particularly suited to this study because the research questions focus on synthesizing existing knowledge to identify patterns, gaps, and implications for policy and practice. Unlike primary data collection, which would require extensive fieldwork across Nigeria’s diverse educational contexts, secondary analysis allows for a comprehensive synthesis of findings from multiple studies, thereby offering a broader perspective on the national landscape. This approach also enables the integration of empirical findings with policy analysis, providing a holistic view of the factors shaping digital counselling adoption.

Limitations: This study is limited by its reliance on secondary data and the absence of primary fieldwork. Consequently, it cannot capture the full nuance of counsellors’ lived experiences as they unfold in specific institutional settings, nor can it account for regional variations that may not be adequately represented in the existing literature. Additionally, the quality and scope of the secondary sources constrain the analysis; where empirical studies are sparse or dated, the findings may not fully reflect current realities.

The Role of Counselling Services in Achieving National Goals

Counselling services contribute to national development by aligning individual potential with national manpower needs, promoting psychological well-being, fostering social cohesion, and supporting educational equity. In Nigeria, these contributions are embedded within policy frameworks such as the National Policy on Education (Federal Republic of Nigeria, 2014), the Economic Recovery and Growth Plan (ERGP), and the Sustainable Development Goals (SDGs), particularly SDG 4 (quality education) and SDG 3 (good health and well-being). Through academic and career guidance, counselling helps translate national education objectives into individual outcomes. Career counsellors use interest inventories, skills assessments, and personality tests to help students identify their aptitudes and match them with priority sectors such as science, technology, engineering, mathematics (STEM), agriculture, and entrepreneurship (Elujekwute, Danburam, Uwalaka & Nnome, 2024). This alignment directly supports the human capital development goals of the ERGP by reducing skills mismatches and preparing a workforce capable of driving economic diversification.

Empirical studies confirm that career counselling interventions improve students’ career decision-making self-efficacy and increase their likelihood of pursuing high-demand fields

(Ekeng, 2024; Scholtz, 2024). Counselling also addresses personal, social, and emotional well-being, which are foundational to national stability. Personal and social counselling equips students with conflict resolution skills, emotional intelligence, and resilience, contributing to social cohesion in Nigeria's ethnically and religiously diverse society (Akinade, 2012). Mental health support provided through counselling interventions has been shown to reduce the incidence of drug abuse, violence, and school dropout, factors that undermine national security and development (Ameh, 2024). Furthermore, counsellors play a critical role in identifying at-risk students and providing early intervention, with AI-based tools now enhancing this capacity by predicting distress and enabling proactive support (Abubakar & Igboaugo, 2025).

The contribution of counselling to educational equity is particularly significant in Nigeria, where dropout rates and out-of-school children numbers remain high. By providing individualized academic support and addressing barriers such as poverty, family dysfunction, and learning difficulties, counsellors help reduce dropout rates and promote inclusive education, directly supporting the national goal of universal basic education (Obiyan, Balogun & Oseghale, 2025). In rural areas where counsellor shortages are acute, digital tools such as tele-counselling platforms and mobile applications are beginning to extend these services to marginalized populations (Christian, 2025).

Finally, counselling services contribute to value re-orientation and responsible citizenship. Through group counselling, orientation programmes, and advocacy, counsellors instill values of honesty, discipline, and civic responsibility, addressing corruption and indiscipline at the grassroots level (Obiyan et al., 2025). By fostering tolerance and respect among diverse ethnic and religious groups, counselling supports the national integration goals articulated in Nigeria's development plans. Collectively, these contributions demonstrate that counselling is not merely a student support service but a strategic tool for achieving national development objectives.

The Role of Digital Tools in Counselling Services in Nigeria

Digital tools have expanded the scope and reach of counselling services in Nigeria by enabling delivery beyond physical office settings, improving efficiency, and enhancing client engagement. These tools can be categorized into four main types: online communication platforms, artificial intelligence (AI) applications, digital assessment instruments, and social media for psychoeducation.

Online communication platforms such as Zoom, Google Meet, Microsoft Teams, and WhatsApp enable counsellors to conduct synchronous and asynchronous sessions with clients. Eze, Udeh, and Nwankwo (2023) documented how counsellors in rural Nigerian communities used WhatsApp to integrate teletherapy, reaching students who previously had no access to qualified professionals. Similarly, Ayodele, Oluwatuyi, and Adeyinka Ojo (2022) found that virtual counselling via video conferencing platforms improved student emotional adjustment in Nigerian tertiary institutions, overcoming geographic distance and reducing stigma associated with seeking help. These platforms also facilitate follow-up interactions, which enhance adherence to counselling plans (Don-Mark, 2025).

Artificial intelligence (AI) applications represent an emerging category of digital tools in Nigerian counselling. AI-driven chatbots and virtual assistants can provide initial assessments, deliver psychoeducational content, and offer 24/7 support, thereby scaling services amid counsellor shortages (Ofem et al., 2025). In secondary school settings, AI tools have been used to automate tracking of student emotional well-being and academic progress, enabling counsellors to identify at-risk students and implement timely interventions (Kingsley, Onyeje, Ogban & Imolong, 2025). Abubakar and Igboaugo (2025) further noted that AI sentiment analysis can detect early signs of distress in student communications, allowing for proactive support.

Digital assessment instruments enhance diagnostic accuracy and efficiency in counselling. Okoko and Asagba (2022) reported that AI-driven psychometric tools, including mobile applications that administer the Beck Depression Inventory, outperformed manual methods in reliability and speed. These tools provide counsellors with real-time data that inform evidence-based interventions tailored to individual client needs.

Social media platforms such as Instagram, Twitter (X), and YouTube have been adapted for large-scale psychoeducation and career awareness. Popoola, Ibraheem, and Yusuf (2023) observed that counsellors use these platforms to disseminate content on issues such as cyberbullying, examination anxiety, and career pathways, reaching young people in formats they already engage with. Adeyemi and Ojo (2023) conducted a study among Gen-Z students in Lagos secondary schools and found that Instagram-based mental health interventions increased awareness of available counselling resources by 67 percent among participants.

Collectively, these digital tools have modernized counselling delivery in Nigeria by expanding access, improving diagnostic precision, and enabling scalable interventions. However, their adoption remains uneven, and equitable distribution across urban and rural schools, as well as public and private institutions, remains a critical challenge (Omeje & Eze, 2019). The evidence suggests that when appropriately implemented, digital tools can significantly enhance the reach and effectiveness of counselling services in Nigeria.

Challenges Facing the Use of ICT in Counselling Services within the Nigerian Educational System

Despite the potential of digital tools to transform counselling services, their adoption in Nigerian schools is constrained by several interrelated challenges. These barriers not only limit access to digital counselling but also affect the quality and continuity of services where they are available.

Infrastructure deficits: The most fundamental challenge is the inadequate ICT infrastructure across Nigerian schools. According to the Nigerian Communications Commission (2024), internet penetration in rural areas remains as low as 23 percent, compared to approximately 60 percent in urban centers. This digital divide directly affects counselling practice because students in rural schools, who often have the greatest need for guidance and mental health support, cannot access online counselling platforms. Christian (2025) observed that counsellors in rural communities frequently rely on their personal mobile devices and data subscriptions to conduct virtual sessions, a practice that is neither sustainable nor equitable. In schools without dedicated ICT facilities, counsellors cannot maintain electronic records or use digital assessment tools, forcing them to revert to paper-based systems that are less efficient and more vulnerable to data loss.

Unstable power supply: Nigeria's unreliable electricity grid presents a persistent operational barrier. Frequent power outages disrupt scheduled virtual counselling sessions, particularly in non-urban areas where backup generators are often unavailable (Tsado, Abdullahi, Abdulrahman, Mohammed & Umar, 2025). A counsellor in a rural secondary school may spend time and resources preparing for a tele-counselling session only to have it interrupted mid-way, damaging rapport with the student and undermining confidence in the service. This unpredictability also limits the feasibility of synchronous counselling models, pushing practitioners toward asynchronous communication (email, messaging) that, while flexible, lacks the immediacy and relational depth of face-to-face interaction.

Funding constraints: Chronic underfunding of the educational sector means that ICT infrastructure for counselling is rarely prioritized. Omeje and Eze (2019) noted that most public schools allocate their limited resources to basic instructional materials and teacher salaries, leaving little for investment in computers, internet connectivity, or counselling software. Private schools,

by contrast, are more likely to have functional ICT facilities, creating a two-tier system where students in private institutions benefit from digital counselling while those in public schools do not. This disparity reinforces educational inequality and limits the reach of counselling interventions to precisely the populations that need them most.

Low digital literacy among counsellors: Even where infrastructure exists, many counsellors lack the competencies required to use digital tools effectively. Ojo and Oluwadare (2021) found that counsellor training programs in Nigerian universities have not systematically incorporated digital competencies into their curricula, leaving graduates unprepared for technology-enhanced practice. This skills gap manifests in several ways: counsellors may avoid using digital tools altogether due to anxiety or lack of confidence; they may use them inefficiently, failing to leverage their full functionality; or they may inadvertently breach client confidentiality due to unfamiliarity with privacy settings on digital platforms. Oko and Nwosu (2021) documented instances where counsellors abandoned tele-counselling initiatives because they found the platforms too complex or time-consuming to navigate, despite initial willingness to adopt.

Ethical and data privacy concerns: The transition to digital counselling raises new ethical challenges that existing professional guidelines do not fully address. Nigerian counsellors operate under the Code of Ethics of the Counselling Association of Nigeria (CASSON), but this framework was developed primarily for face-to-face practice. Issues such as data encryption, secure storage of electronic records, client consent for digital interactions, and boundaries in social media counselling remain ambiguous (Ayodele, Adeoye, Ossai-Opute, Obianue & Ekweanua, 2022). Without clear protocols, counsellors may inadvertently compromise client confidentiality or expose themselves to legal liability. Popoola, Ibraheem, and Yusuf (2023) noted that while social media platforms offer outreach opportunities, they also create risks of boundary violations and information overload, requiring careful ethical discernment.

Resistance to change: Finally, some counsellors exhibit resistance to adopting digital tools, rooted in preferences for traditional face-to-face methods or skepticism about the effectiveness of technology-mediated interventions. This resistance is often reinforced by the absence of institutional support or incentives for innovation. Oko and Nwosu (2021) observed that schools where administrators actively encouraged digital adoption saw higher counsellor engagement, while those where ICT integration was left to individual initiative experienced minimal uptake. Overcoming resistance requires not only training but also visible leadership commitment and the creation of supportive organizational cultures. These challenges collectively explain why, despite growing recognition of the potential of digital tools, their integration into Nigerian counselling services remains uneven and limited. Addressing them requires coordinated efforts across infrastructure development, policy reform, counsellor education, and ethical guideline revision, a systemic approach that moves beyond piecemeal interventions.

Conclusion

This study has examined the role of digital tools in modernizing counselling practices within the Nigerian educational sector, situating the discussion within the broader context of national development goals and the rapid digital transformation reshaping professional practice globally. Drawing on the Technology Acceptance Model (Davis, 1989), the study has demonstrated that counsellors' adoption of digital tools is shaped significantly by their perceptions of usefulness and ease of use, which in turn are influenced by infrastructure availability, training opportunities, and institutional support. The findings reveal that digital tools, including online communication platforms, artificial intelligence applications, digital assessment instruments, and social media for psychoeducation, hold significant potential to expand access to counselling services, improve diagnostic accuracy, and enhance student engagement. However, this potential remains largely

unrealized due to persistent challenges: inadequate ICT infrastructure, unstable power supply, chronic underfunding, low digital literacy among counsellors, unresolved ethical and data privacy concerns, and resistance to change. These barriers are particularly acute in public schools and rural areas, where the need for counselling support is often greatest. The significance of this study lies in its synthesis of existing literature to provide a comprehensive overview of the current state of digital counselling in Nigeria, identifying both opportunities and constraints. By anchoring the analysis in TAM, the study offers a theoretical lens through which to understand the perceptual and contextual factors that influence technology adoption.

Furthermore, by linking counselling services to national development frameworks such as the National Policy on Education, the Economic Recovery and Growth Plan, and the Sustainable Development Goals, the study underscores that counselling is not merely a student support service but a strategic tool for human capital development, social cohesion, and educational equity. Looking forward, the modernization of counselling services in Nigeria will require coordinated action across multiple fronts. Investment in ICT infrastructure must be prioritized, particularly in underserved rural schools. Counsellor training programs must be revised to incorporate digital competencies, ensuring that graduates are prepared for technology-enhanced practice. Policy frameworks must be updated to provide clear ethical guidelines for tele-counselling, data protection, and social media use.

Recommendations

Based on the findings of this study, the following recommendations are offered:

1. The Federal Ministry of Education, in collaboration with state governments and the Nigerian Communications Commission, should establish a dedicated digital counselling infrastructure fund to equip public schools with reliable internet connectivity, power backup systems, and secure tele-counselling platforms, prioritizing rural and underserved communities.
2. The National Universities Commission and the Counselling Association of Nigeria should develop and mandate a national digital counselling competency framework, integrating tele-counselling ethics, AI tool usage, and electronic record management into all counsellor education curricula and continuing professional development programs.
3. The Federal Ministry of Education should revise the National Policy on Education to formally recognize digital counselling as an integral component of school guidance services, including specific provisions for tele-counselling implementation, data protection standards aligned with the Nigeria Data Protection Act, and budgetary allocations for ICT in counselling units.
4. The Counselling Association of Nigeria, in partnership with the National Information Technology Development Agency, should develop and disseminate comprehensive ethical guidelines for online counselling practice, addressing client consent, data encryption, platform selection, boundaries in social media counselling, and protocols for emergency interventions in virtual settings.
5. State ministries of education and school administrators should launch targeted awareness campaigns for students, parents, and community stakeholders, utilizing radio, social media, and school assemblies to communicate the availability, confidentiality, and benefits of digital counselling services, thereby reducing stigma and increasing help-seeking behaviour among young people.

References

- Abubakar, H., & Igboaugo, E. (2025). Application of artificial intelligence in school counselling. *Journal of Contemporary Research in Educational Administration & Management*, 3(1), 45–62.
- Adedoyin, O. B., & Kola, K. (2020). Classroom overcrowding and its effects on students' academic performance in Nigeria: A case study of secondary schools in Lagos State. *International Journal of Educational Management*, 34 (5), 997–1013.
- Adeyemi, O. A., & Ojo, T. B. (2023). Leveraging social media for mental health awareness in Nigerian secondary schools. *Journal of Educational Psychology in Africa*, 15 (2), 45–62.
- Akinade, E. A. (2012). *Introduction to modern guidance and counselling*. Bright Ways Publishers.
- Akinade, E. A. (2023). *Foundations of guidance and counselling in Nigeria* (3rd ed.). Bright Ways Publishers.
- Ameh, E. D. (2024). Strengthening mental health counselling services for national development: A review of best practices and policy implications in Nigeria. *Calabar Counsellor*, 12(1), 34–48.
- American Counselling Association. (2021). *Ethical considerations for the use of technology in counselling*. <https://www.counseling.org/>
- Ayodele, K. O., Adeoye, A. O., Ossai-Opute, C. S., Obianenue, O. A., & Ekweanua, J. C. (2022). Guidance counsellors' lived experiences of the use of technological tools in school counselling practices in Ikenne LGA, Ogun State, Nigeria. *Journal for Re-Attach Therapy and Developmental Diversities*, 5(2), 150–165.
- Ayodele, K. O., Oluwatuyi, O. A., & Adeyinka-Ojo, S. F. (2022). Virtual counselling and student emotional adjustment in Nigerian tertiary institutions. *International Journal of Educational Management*, 36 (4), 789–802.
- Baker, J. A., Smith, L. C., & Johnson, R. (2020). Innovations in school counselling: The role of technology in enhancing student support services. *Journal of School Counselling*, 18 (3), 1–19.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2), 77–101.
- Christian, O. N. (2025). The impact of digitalization on guidance and counselling services in Nigerian schools: Exploring the benefits and challenges of online counselling platforms and digital resources. *International Journal of Innovative Psychology & Social Development*, 13 (4), 78–95.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13 (3), 319–340.
- Don-Mark, M. H. (2025). Integration of digital tools in school counselling for positive student outcomes in Phalga, Rivers State. *International Journal of Research Publication and Reviews*, 6(12), 45–60.
- Edeh, J. A., & Uche, I. A. (2022). The role of digital counselling tools in enhancing student engagement and academic performance in Nigerian secondary schools. *Journal of Educational Psychology*, 114 (3), 225–240.
- Ekeng, B. (2024). Personalized career counselling and job market readiness: A comparative study in Cross River universities. *Nigerian Journal of Career Studies*, 9(2), 112–128.
- Elujekwute, E. C., Danburam, I. U., Uwalaka, M. C., & Nnome, C. I. (2024). Guidance and counselling and the achievement of sustainable development goals (SDGs) in Nigeria. *Benue State University Journal of Education*, 15(1), 78–95.

- Eze, J. E., Udeh, C. C., & Nwankwo, G. (2023). Teletherapy platforms and rural access to counselling in Nigeria. *Journal of Telemedicine and Rural Health*, 9(1), 15–29.
- Federal Republic of Nigeria. (2014). *National policy on education* (6th ed.). NERDC Press.
- Ifinedo, P. (2012). Technological acceptance in the workplace: A framework for understanding the factors influencing technology acceptance in public sector organizations in Nigeria. *Public Administration Research*, 1(1), 44–55.
- Isiaka, A. O. (2024). Digital innovations and the transformation of counselling services in Nigeria. *African Journal of Guidance and Counselling*, 10(2), 87–102.
- Itasanmi, S. A. (2023). Determinants of behavioural intention among open and distance learning students in the use of digital tools and resources for learning in Nigeria. *Journal of Open and Distance Learning*, 18(3), 210–228.
- Kingsley, O. A., Onyeje, O. M., Ogban, A. H., & Imolong, O. M. (2025). Application of artificial intelligence (AI) to student personnel management and counselling in public secondary schools in Cross River State, Nigeria. *International Journal of Multidisciplinary Research and Growth Evaluation*, 6(1), 422–435.
- Nigerian Communications Commission. (2024). *2024 digital access report*.
<https://www.ncc.gov.ng/documents/1234>
- Obiyan, D. O., Balogun, M. A., & Oseghale, O. J. (2025). The role of counselling units and essential resources in achieving basic education in Nigeria: Challenges and strategies for progress. *Studies in Education*, 23(2), 45–62.
- Oduolowu, A. (2021). Teacher quality and student achievement in Nigeria: Challenges and prospects. *Nigerian Journal of Educational Administration and Planning*, 21(1), 55–70.
- Ofem, U. J., Anake, P. M., Abuo, C. B., Ukatu, J. O., & Etta, E. O. (2025). Artificial intelligence application in counselling practices: A multigroup analysis of acceptance and awareness using gender and professional rank. *Frontiers in Digital Health*, 7, Article 11962729.
- Ogunyemi, B., & Afolabi, O. (2020). The role of counselling in managing adolescent issues in Nigerian secondary schools. *Journal of Counselling and Development*, 98(4), 300–310.
- Ojo, O. A., & Oluwadare, A. O. (2021). Professional development and the adoption of technology in counselling: A survey of secondary school counsellors in Nigeria. *Nigerian Journal of Educational Administration and Planning*, 21(2), 56–70.
- Oko, I. E., & Nwosu, A. C. (2021). Challenges and prospects of using technology in school counselling in Nigeria. *International Journal of Education and Research*, 9(4), 23–34.
- Okoko, J. V., & Asagba, E. (2022). Digital psychometric tools: Enhancing accuracy in school counselling. *International Journal of Testing*, 22(3–4), 245–262.
- Omeje, J. C., & Eze, T. I. (2019). ICT utilization in guidance and counselling services in Nigerian schools. *Nigerian Journal of Educational Psychology*, 11(2), 45–58.
- Owoeye, J. O., & Akinwunmi, O. J. (2020). The impact of digital tools on school counselling: A case study of selected secondary schools in Nigeria. *Journal of Educational Technology*, 7(1), 35–50.
- Popoola, B. O., Ibraheem, A. A., & Yusuf, J. (2023). Counselling services in the digital era: Implications and opportunities for counsellors in Nigeria. *International Journal of Educational and Literacy ICT*, 2(1), 34–50.
- Scholtz, S. E. (2024). Vocational interest measures across Africa: A scoping review. *British Journal of Guidance & Counselling*, 52(2), 318–333.
- Swinton, J., & Mowat, H. (2016). *Practical theology and qualitative research* (2nd ed.). SCM Press.

- Tsado, E. B., Abdullahi, S., Abdulrahman, M. M., Mohammed, A., & Umar, S. (2025). Emerging challenges and remedies in integrating digital technologies in the teaching and learning of industrial technical education in colleges of education in North Central Nigeria. *International Journal of Science, Technology and Society*, 12(3), 78–94.
- Uche, I. A., & Okeke, C. I. (2021). The impact of funding on the educational system in Nigeria: A review of literature. *Journal of Educational Research and Practice*, 11(2), 35–47.
- Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, 39(2), 273–315.
- Williamson, B. (2020). New pandemic EdTech power networks. *TECHLASH*, 1, 17–26.
- Worldometer. (2025). *Nigeria population*. <https://www.worldometers.info/world-population/nigeria-population/>