

ARTIFICIAL INTELLIGENCE AND COUNSELLING SERVICE AMONG UNDERGRADUATE STUDENTS IN CROSS RIVER STATE

Sylvia E. Ekpo, Linda E. Ndome, Enemadukwu D. Ameh, Maryanne Adama, and Clementina A. Ntui

Department of Guidance and Counselling, University of Calabar, Calabar.

Email: enemadukwu90@gmail.com, +2348060760483

Abstract

AI tools are increasingly being utilized in counselling services to provide student support, but their impact on undergraduate students needs to be thoroughly examined. This study examines the relationship between Artificial Intelligence and Counselling Service among Undergraduate Students in Cross River State. To achieve this, three (3) objectives, three (3) research questions and three (3) hypotheses were formulated. Correlational research design was adopted. The sample was 760 students from the sampled faculties out of 44,281 in UNICAL, 31,410 in CRSUE, and 23,971 in UNICROSS. Three experts validated the instrument, it was titled "Usage, Awareness, Attitude towards AI and Effective Counselling Service Questionnaire" and was administered to the respondents to elicit their responses. The instruments were 28 items with a 4-option answer format with three sections, section A elicited information on the demographic data of the respondents with 4 items while section B elicited information from the respondents on the level Usage, Awareness and Attitude towards AI and it is made up of 18 items six items each for the four variables while section C elicited questions about the respondents Effective Counselling Service with ten items both B and C on a 4-point scale. A pilot study was conducted on a sample of 50 participants, and an internal consistency coefficient of .86 was obtained using the Cronbach alpha reliability estimate methods. The research questions were answered using Bar Chart and percentages, while the hypotheses were tested using Pearson product-moment correlation at a .05 level of significance. The findings revealed that the usage, awareness, and attitude toward AI, positively relates with effective counselling service among undergraduate students in Cross River State, Nigeria.

Keywords: artificial intelligence, tools, counselling service, and undergraduate students

Introduction

Education is a crucial factor for development in both developed and developing nations. It generates, applies, and shares knowledge, facilitating social transformation. The Nigerian Federal Government recognizes education as a tool for achieving national goals. In developing countries, education equips students with new skills, tacit knowledge, cultures, attitudes, behaviours, and innovative solutions to daily life problems Osha et al. (2024).

Counselling plays a crucial role in the school system, providing professional guidance to students to navigate academic, personal, social, and career challenges. It aims to promote emotional well-being, enhance academic performance, and support informed career decisions. Counselling service also address mental health concerns, foster positive relationships, and equip students with effective coping strategies. However, traditional counselling approaches often fail to address the complex needs of students (Oyebisi et al. 2024). Advances in AI enable schools to offer tailored, data-driven support, ensuring that students' individual academic, emotional, and social requirements are met with greater

accuracy and attention. This innovative approach is expected to revolutionize school counselling and guidance services.

According to Igboke (2023), Artificial Intelligence (AI) is a technology that replicates human cognitive abilities using machine learning algorithms, neural networks, and natural language processing. It is revolutionizing various sectors, including education, healthcare, finance, and manufacturing. AI can enhance learning experiences, improve student outcomes, and automate administrative tasks. AI-powered learning platforms can offer personalized education, provide instant feedback, and identify potential issues early on. It can also help educators identify students' strengths and weaknesses, enabling more tailored instruction. AI promotes transparency, data-driven decision-making, and efficient resource allocation.

The application of AI in Nigerian professional counselling sessions remains unclear due to challenges such as infrastructural decay, lack of access to ICT materials, ethical issues, and a lack of skills. A study by Zhou et al (2020), has attempted to explore AI's potential in mental health treatments, but it was not conducted in Nigeria. This study aims to address this gap by examining the awareness and acceptability of AI in the utilization of AI-powered counselling intervention tools in Nigeria. By leveraging AI technologies like chatbots and virtual agents, this research aims to provide scalable mental health support to underserved populations. The study also investigates the awareness and acceptability of AI-driven counselling among Nigerians, ensuring the applicability of these interventions within the local context (Hwang & Tu, 2021). It also highlights the need for empirical evidence-based decision-making to develop timely policies and promote professional development of counsellors in line with global practices. The study examines the interlink between awareness and acceptance of AI tools in counselling practices, considering gender and professional rank differences.

AI is revolutionizing school counselling by improving efficiency, customization, and effectiveness. AI-driven tools and systems, including chatbots, virtual assistants, predictive analytics, and virtual reality therapies, are empowering counsellors and educators to deliver data-informed guidance and interventions. Nearly 20% of students face serious mental health issues, such as anxiety and depression, which can impact academic performance and well-being (Ameh, & Umoh, 2024). Traditional counselling approaches often fall short in addressing these needs. The future of student counselling lies in the continued integration of technology with personalized, empathetic human interaction, addressing the diverse needs of the student population (Oyebisi et al. 2024). Chatbots and virtual assistants offer instant support to students, alleviating anxiety and stress while providing resources for mental health, wellness, career guidance, and exploration. These tools ensure students receive the assistance they need to thrive academically and personally. They can be customized to address specific school and student populations' unique requirements. AI in school counselling can identify at-risk students by analyzing data from various sources, detecting subtle patterns and warning signs, enabling counsellors to implement timely interventions and provide support to prevent more serious challenges from arising (Rakap, 2023; Oyebisi et al., 2024; Aristanto et al., 2023). This technology is crucial for ensuring students receive the support they need to thrive academically and personally.

AI helps school counsellors evaluate service effectiveness and make informed decisions about programme development and resource allocation. By analyzing student outcomes and programme impact, AI offers insights into what works and what needs improvement. This allows counsellors to refine strategies and optimize support for students (Rakap, 2023). AI technologies, like predictive analytics and machine learning, process extensive data sets to

identify patterns and forecast student behaviours. This enables counsellors to address potential concerns proactively, delivering personalized interventions tailored to individual student needs. Furthermore, AI-powered tools like chatbots and virtual counselling platforms offer innovative solutions for student engagement, providing round-the-clock assistance and promoting ongoing communication between students and counsellors. However, integrating AI into school counselling presents challenges in ethics, privacy, and data security. Stringent safeguards are needed to protect sensitive student information and ensure AI-driven interventions complement the human element of counselling, as empathy, understanding, and personalized interaction are essential for effective student support. Consequently, this study aims to examine if the use of AI positively relates with effective counselling, the level of awareness of AI by undergraduates positively relates with effective counselling, and the level of Attitude towards AI by undergraduates positively relates with effective counselling.

Statement of Problem

AI has revolutionized various sectors, including counselling, offering innovative ways to enhance service delivery and client outcomes. However, research on AI in counselling practices often focuses on its technical applications, neglecting the interplay between awareness, attitude, and use. This study aims to investigate the relationship between AI and counselling service among undergraduate students in Cross River State, Nigeria.

Literature Review

Use of AI and Effective Counselling Service

Spytskay (2025) compared the effectiveness of the use of AI-powered Friend chatbot in providing psychological support during crises compared to traditional psychotherapy. The study involved 104 women diagnosed with anxiety disorders in active war zones. Participants were divided into two groups: the experimental group used the chatbot daily, and the control group received 60-minute psychotherapy sessions three times a week. Anxiety levels were assessed using the Hamilton Anxiety Rating Scale and Beck Anxiety Inventory. Both groups showed significant reductions in anxiety levels. Traditional therapy was found to be more effective due to the emotional depth and adaptability of human therapists. The chatbot was particularly beneficial in crisis settings where access to therapists was limited. However, its emotional engagement was lower compared to in-person therapy. The study concludes that “Friend chatbots such as Replika, Friend bot and Character. AI offers scalable, cost-effective solution for psychological support, especially in crises where traditional therapy may not be accessible.

Also, Ofem et al. (2025) examined the use of artificial intelligence (AI) in counselling practices by professional counsellors, focusing on the relationship between awareness and use. The research involved 5,432 counsellors, with data collected online. The study found that counsellors had high awareness, acceptability, and application of AI in their practices. The study emphasizes the importance of addressing gender and professional rank disparities to ensure equitable adoption and utilization of AI tools. The findings provide valuable insights for policymakers to promote the integration of AI in counselling to enhance professional practices. Another research carried out by Anita, et al. (2024) explored how AI can be used to increase the effectiveness, accessibility, and responsibility of guidance and counselling services for students. Guidance and Counselling Chatbots are an example of AI being used in educational contexts. A literature study reveals that many guidance and counselling students have adopted AI in educational contexts. AI has great potential to improve the efficiency and effectiveness of education systems, with various types of AI available, such as Canva, Google

Meet, Zoom, Mozilla Firefox, and ChatGPT. However, academic ethics must be considered to achieve educational goals effectively.

Migdadi et al.'s (2024) study conducted in three private universities in Jordan examined the relationship between AI ethical awareness, attitudes, anxiety, and intention-to-use AI technology among nursing students. The results showed moderate levels of AI ethical awareness, attitudes, anxiety, and intention-to-use AI. No significant differences were found based on gender or study year. However, intention-to-use AI had a significant positive relationship with AI ethical awareness, attitudes, and anxiety. The study highlights the urgent need to keep up with technological developments, especially in nursing educational institutions, and highlights the importance of understanding behavioural intention towards AI and the impact of demographics on these factors. Also, a study by Hosseini et al. (2023) discussed the ethical implications of using AI tools like ChatGPT and large language models (LLMs) in scholarly manuscripts. Some journals, like Science, have banned LLMs due to ethical concerns about responsible authorship. However, the authors argue that such bans are unenforceable and encourage undisclosed use. LLMs can be useful in text editing and promoting equity in science. They also argue that naming LLMs as authors or acknowledging them in acknowledgments is inappropriate as they do not have free will. They suggest improving APA Style for referencing ChatGPT by specifying the contributor, version, model, and usage time. Researchers should disclose their use in the introduction or methods section, use in-text citations and references, and record their interactions with LLMs as supplementary material or appendices.

Lewis et al.'s (2024) study explored the use of artificial intelligence in medical imaging and radiation science education. Data was collected through five focus group interviews with undergraduate medical imaging and radiation science students in South Africa. Three themes emerged: understanding artificial intelligence, experiences with AI use, and incorporation of AI in education. However, concerns were raised about the reliability and ethical implications of AI-generated information. To address these concerns, participants suggested integrating AI into medical imaging and radiation sciences education, educating students on responsible AI use and considering AI in assessments.

The Level of Awareness of AI and Effective Counselling Service

Gagan et al.'s (2024) study compares the perceptions of ChatGPT and human mental health support professionals in terms of authenticity, professionalism, and practicality. Initially, AI-generated responses were rated higher, but six months later, when the source of each response was disclosed, the perception shifted towards human responses. Trust in AI was significantly correlated with its practicality rating, but not authenticity or professionalism. The study highlights the nuanced acceptance of AI in mental health support and emphasizes that disclosure of the response source significantly shapes perceptions and trust in AI-generated assistance.

Aktan et al. (2024), studied factors influencing awareness for AI-based psychotherapy among 872 highly educated individuals aged 18 and above. The Attitude towards AI-based Psychotherapy Scale, Attitude towards Seeking Professional Psychological Help Scale-Short Form, and Stigma Scale for Receiving Psychological Help Scale were used to assess participants' preferences. 55% preferred AI-based psychotherapy, but most trusted human psychotherapists more for data security. AI-based psychotherapy offers comfort in discussing embarrassing experiences, accessibility at any time, and remote communication. Also,

Shizhen et al.'s (2024) study involving 327 Chinese employees found that AI awareness significantly impacts counterproductive work behaviours (CWB) in human-intelligence collaborations. The study used Hayes' PROCESS macro to analyze data and found that AI awareness had a significant positive impact on CWB. The study also found that psychological contract and emotional exhaustion play a partial role in the relationship between AI awareness and CWB. The mediating pathways consisted of three sequences, contributing to the overall effect.

Similarly, Bozdemir-Ozel and Yakut-Ozdemir, (2024), examined the awareness, readiness, anxiety, and barriers to AI use among physiotherapists. A survey of 413 physiotherapists was conducted, focusing on their knowledge, readiness, and anxiety levels. Results showed that 61% of physiotherapists knew AI in physiotherapy and rehabilitation. Mobile-based applications were the most preferred approach, but the cost of AI-based therapies was the most limiting factor. The Medical Artificial Intelligence Readiness Scale was calculated at 74.19 ± 14.25 , and the Artificial Intelligence Anxiety Scale was 50.72 ± 22.76 . Physiotherapists with a bachelor's degree level of education had lower readiness levels. The study concluded that physiotherapists have low AI-related anxiety and a high degree of readiness, with a positive attitude and willingness to use AI-based applications in practice. Al-Ghazali (2024), evaluated the awareness, perception, and opinion of AI among pharmacy students at National University for Science and Technology in Oman. A cross-sectional survey was conducted among students at different levels of the college. Results showed that over 50% of students are familiar with AI's use in scientific research, while 46.4% have a basic understanding of AI technologies. However, over 75% do not know its applications in pharmacy practice, 50.6% do not know AI can support therapeutic diagnosis, and 57% do not know its importance in pharmacy education. A high perception was shown towards AI facilitating pharmacy access to information (84.2%) and patients' access (80.8%). 92% suggested AI training is needed, and 86.1% recommended using AI in scientific research. The study concluded that AI plays a crucial role in education in pharmacy and health communities.

Blease (2020), investigated postgraduate clinical psychology and psychotherapy students' familiarity and exposure to AI/ML topics during their studies. A survey was conducted on 120 students at a Swiss University, with 37 responding. The majority (27%) intended to enter a mental health profession, with 97% familiar with machine learning and 78% familiar with big data analytics. Students estimated that 18.61/3600 hours, or 0.52% of their programme, would be spent on AI/ML education. Around half (46%) intended to learn about AI/ML in mental health care. Students moderately agreed that AI/M should be part of clinical psychology/psychotherapy education. Zhao et al. (2025) carried out a study that explored the impact of AI awareness on employees' performance in both in-role and extra-role roles. It uses self-construal theory to analyze data from 353 questionnaires. Results show that employees' AI awareness affects their perceived over qualification, which in turn relates with their reflection on AI usage and dependence on AI. Employee-AI collaboration moderates the relationship between AI awareness and perceived over qualification. The study provides a comprehensive perspective on AI awareness research and practical implications for promoting its positive effects while mitigating its negative consequences. It offers practical implications for promoting AI awareness and mitigating its negative consequences.

The Level of Attitude toward AI and Effective Counselling Service

Hannaand Hanna (2024) investigated the perceptions, attitudes and experiences of human therapists regarding the use of Artificial Intelligence (AI) therapy chatbots in mental health

care, specifically using Cognitive Behavioural Therapy (CBT). The research used semi-structured interviews with seven participants, all experienced in mental health care and CBT. The findings revealed that while AI chatbots offer increased accessibility and consistent treatment, they raise concerns about ethical issues, the therapeutic relationship, and the ability to address complex emotional needs. The study emphasizes the need for further research on AI therapy's efficacy and ethical implications, despite limitations such as a small sample size and limited AI knowledge. In a related study, Aliyu (2025) examined the awareness and attitude of chemistry teachers in Sokoto State, Nigeria. A descriptive research design was used, with 160 teachers from Sokoto Metropolis. Data was collected using a structured questionnaire and analyzed through descriptive statistics. Findings revealed a low level of teachers' awareness and poor attitude toward AI tools in chemistry education, with most lacking familiarity with AI applications. However, teachers recognized the value of AI in enhancing student engagement and offering individualized learning experiences. The study suggests the need for targeted professional development programmes to improve teachers' understanding and application of AI in chemistry education.

Fadil and Alahmadi (2025) conducted a cross-sectional survey to assess the views, knowledge, and attitudes of healthcare students (HCs) regarding artificial intelligence (AI). The survey was conducted between April and June 2023, using a validated questionnaire distributed electronically across different universities in Saudi Arabia. The results showed that the majority of HCs had a positive attitude toward AI in healthcare, agreeing that AI could improve diagnostic accuracy, reduce errors in medical practice, and facilitate patient education. However, concerns were expressed about AI's harmful impact on healthcare practitioners' relationships with patients, potential ethical implications, and allowing patients to increase control over their health. Most students (85%) believed that integrating AI into healthcare could lead to job loss. The analysis of multiple linear regression showed that the course of study and awareness of AI were predictors of the perception score of AI. Similarly, Kleine et al. (2023) studied 206 psychology students and psychotherapists aimed to understand the predictors of their attitude to use two AI-enabled mental health tools based on the Unified Theory of Acceptance and Use of Technology. The tools provided feedback on motivational interviewing techniques and mood scores for treatment decisions. Participants were presented with graphic depictions of the tools' functioning mechanisms before measuring variables of the extended Unified Theory of Acceptance and Use of Technology. Results showed that perceived usefulness and social status positively relates with undergraduate students' attitude to use the feedback tool and treatment recommendation tool, while trust was unrelated. Perceived ease of use was also unrelated to use intentions. A positive relationship was observed between cognitive technology readiness and attitude to use the feedback tool, while a negative relationship was observed between AI anxiety and attitude to use the tools.

Methodology

The research design adopted for this study was the correlational research design. The population for the study was all undergraduate students from Cross River State University (UNICROSS), Cross River State University of Education (CRSUE) and University of Calabar (UNICAL) in Cross River State, Nigeria. Stratified random sampling technique was used to select ten faculties from UNICAL, 10 faculties from CRSUE and 5 faculties from UNICROSS. The sample size of 760 students was drawn from the sampled faculties out of the 44,281 in UNICAL, 31,410 in CRSUE and 23,971 in UNICROSS. The instrument used for the study was titled "Usage, Awareness, Attitude to AI and Effective Counselling Services

Questionnaire" and was administered to the respondents to elicit their responses. Three experts validated the instruments, both of which were used to collect data for the study. The instrument has 28 items with a 4-option answer format. The instrument was divided into three sections, section A elicited information on the demographic data of the respondents with 4 items, while section B elicited information from the respondents on the level Usage, Awareness, and Attitude to AI and it is made up of 18 items six items each for the four variables, while section C elicited questions about the respondents. Effective Counselling Service with ten items both B and C on a 4-point scale. A pilot study was conducted on a sample of 50 participants, and an internal consistency coefficient of .86 was obtained using the Cronbach alpha reliability estimate methods. The hypotheses were tested using Pearson product-moment correlation at a .05 level of significance.

Purpose of the study

The purpose of the study was to investigate the relationship between AI and counselling service among undergraduate students in public universities in Cross River State, Nigeria.

Research questions

The study was designed to provide answers to the following research questions:

1. To what extent does the usage to AI relate with effective counselling services among undergraduate students in public universities in Cross River State, Nigeria?
2. To what extent does the awareness of AI relate with effective counselling services among undergraduate students in public universities in Cross River State, Nigeria?
3. To what extent does the attitude of undergraduate students to AI relate with effective counselling services among undergraduate students in public universities in Cross River State, Nigeria?

Hypotheses

The study tested the following hypotheses:

1. The usage of AI does not significantly relate with effective counselling services among undergraduate students in public universities in Cross River State, Nigeria.
2. The awareness of AI does not significantly relate with effective counselling services among undergraduate students in public universities in Cross River State, Nigeria.
3. The attitude of undergraduate students to AI does not significantly relate with effective counselling services among undergraduate students in public universities in Cross River State, Nigeria.

Presentation of Results

Research question one

To what extent does the usage of AI relate with effective counselling service among undergraduate students in public universities in Cross River State, Nigeria?

From Figure 1, it shows that 396 respondents have low usage while 364 respondents indicated that they have high usage of AI tools for effective counselling services. From the figure below it shows that the usage of Ai tool for counselling services is low.

Research question two

To what extent does the awareness of AI relate with effective counselling service among undergraduate students in public Universities in Cross River State, Nigeria?

From figure 2 it shows that 403 respondents have low awareness while 364 respondents indicated that they have high awareness of AI tools for effective counselling services. From the figure below it shows that the awareness of Ai tool for counselling services is low.

Research question three

To what extent does the attitude to AI relate with effective counselling service among undergraduate students in public Universities in Cross River State, Nigeria?

From Figure 3, it shows that 389 respondents have low attitude while 371 respondents indicated that they have high attitude to AI tools for effective counselling services. From the figure below it shows that the attitude to Ai tool for counselling services is low.

Figure 1: Showing the extent of usage of AI in counselling services

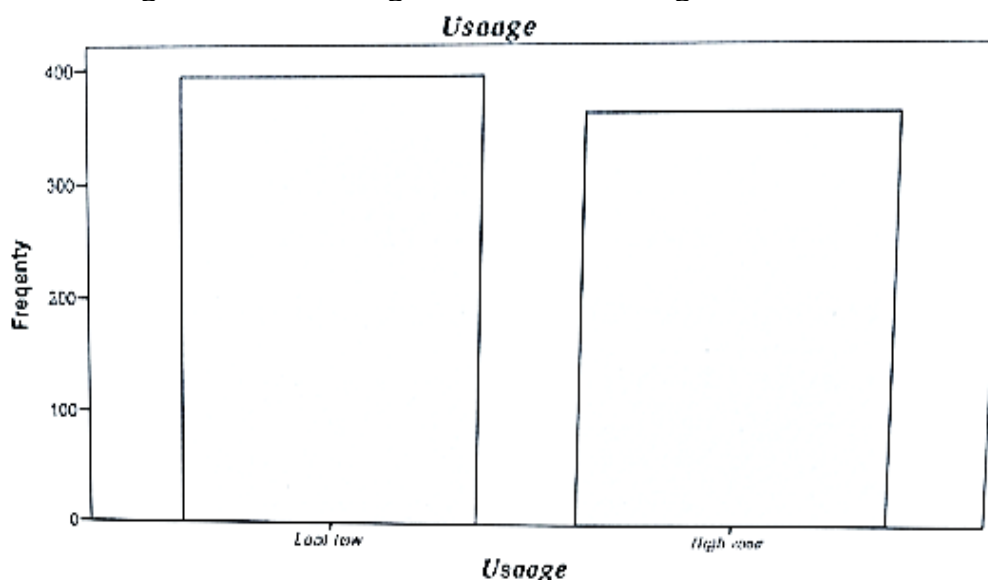


Figure 2: Showing the awareness of usage of AI in counselling services

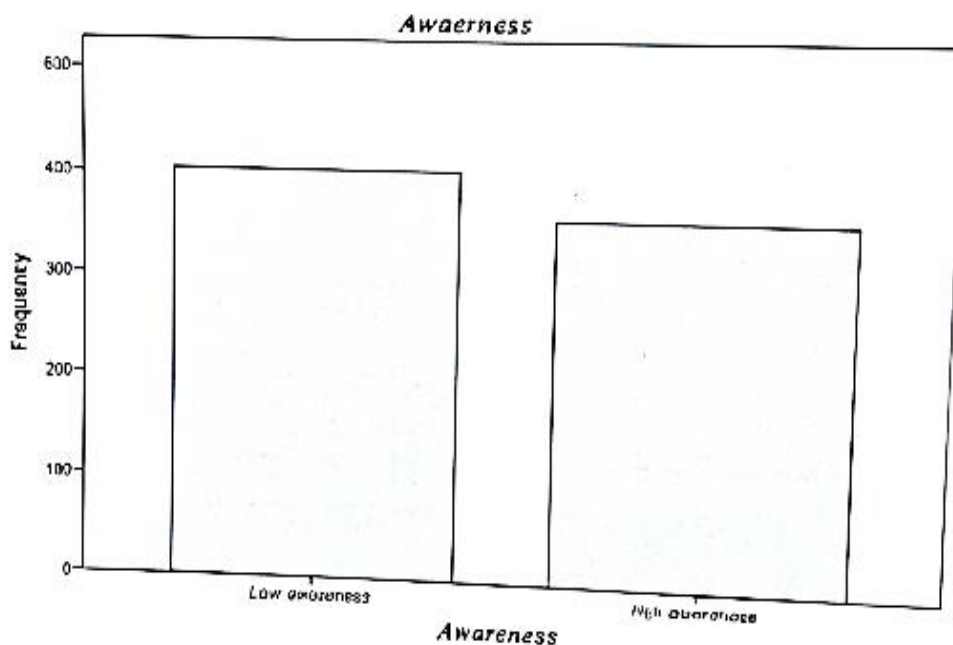
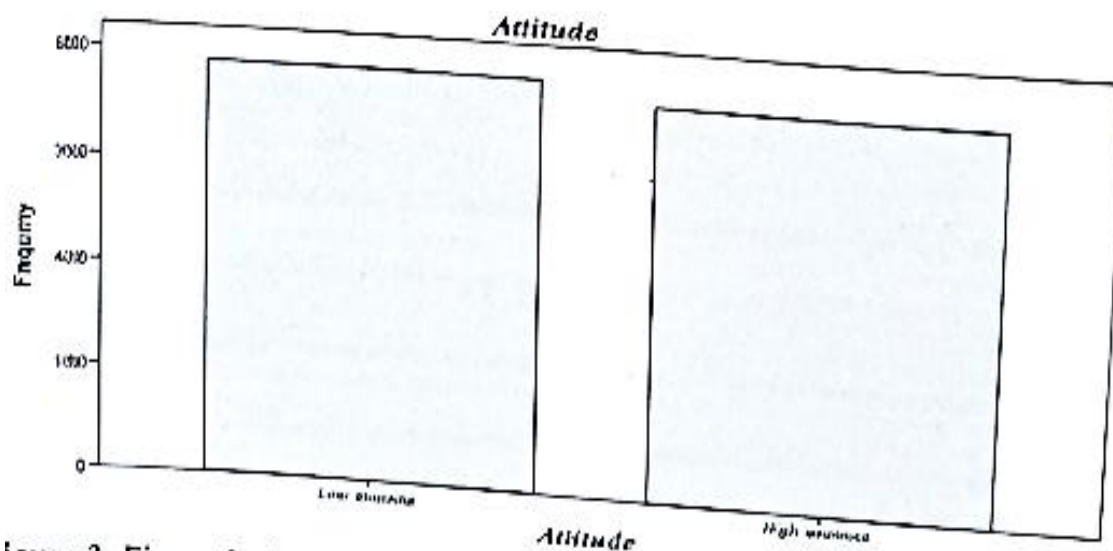


Figure 3: Showing the attitude of usage of AI in counselling services



To what extent does the attitude to AI relate with effective counselling service among

Hypothesis one

The usage of AI does not significantly relate with the effectiveness of counselling service among undergraduate students in public Universities in Cross River State, Nigeria. To test this hypothesis, the relationship between the dependent variable (effective counselling service) and the independent variable (The usage of AI) was established using the Pearson product-moment correlation analysis.

Table 1: Pearson Product-Moment Correlation Analysis Showing the Relationship Between the Usage of AI and Effective Counselling Service (N=760)

Variable	$\bar{x}$	SD.	r-Cal	P-Value
The usage of AI	14.83	3.47	.803	.000
Effective counselling service	26.25	6.95		

Significant at .05 level, r- Critical = .112891, df= 758

The data in Table 1 showed that the calculated r value, .803, is greater than the r critical or table value of .112891 at the .05 level of significance with 758 degrees of freedom, therefore, the null hypothesis is rejected. This means that there is a significant positive relationship existing between the usage of AI and effective counselling services. That is, the better the usage of AI, the more improved the counselling service and vice versa. By this result, the null hypothesis was rejected and the alternative hypothesis was upheld. This, therefore, shows that the usage of AI is related to effective counselling services.

Hypothesis Two

The awareness of AI does not significantly relate with effective counselling services among undergraduate students in public Universities in Cross River State, Nigeria. To test this hypothesis, the relationship between the dependent variable (effective counselling service) and the independent variable (The awareness of AI) was established using the Pearson product-moment correlation analysis.

Table 2: Pearson Product-Moment Correlation Analysis Showing the Relationship Between Awareness of AI and Effective Counselling Service (N=760)

Variable	$\bar{x}$	SD.	r-Cal	P-Value
The awareness of AI	14.47	5.39	.759	.000
Effective counselling service	26.25	6.95		

Significant at .05 level, r- Critical = .112891, df= 758

The result of the analysis in Table 2 showed that the calculated r value, .759, is greater than the r critical or table value of .112891 at the .05 level of significance with 758 degrees of freedom, therefore, the null hypothesis is rejected. This means that there is a significant positive relationship existing between the awareness of AI and effective counselling service. That is, the better the awareness of AI, the more improved the counselling service and vice versa. By this, the null hypothesis was rejected and the alternative hypothesis was upheld. This, therefore, shows that the awareness of AI relates with effective counselling service.

Hypothesis Three

The attitude of undergraduate students to AI does not significantly relate with effective counselling service among undergraduate students in public Universities in Cross River State, Nigeria. To test this hypothesis, the relationship between the dependent variable (effective counselling service) and the independent variable (The attitude to AI) was established using the Pearson product-moment correlation analysis. The result is presented in Table 3.

Table 3: Pearson Product-Moment Correlation Analysis Showing the Relationship Between Attitude of Undergraduate Students to AI And Effective Counselling Service (N=760)

Variable	$\bar{x}$	SD.	r-Cal	P-Value
The attitude to AI	15.07	5.52	.821	.000
Effective counselling service	26.25	6.95		

Significant at .05 level, r - Critical = .112891, df = 758

The result of the analysis in Table 3 shows that the calculated r value, .821, is greater than the r critical or table value of .112891 at the .05 level of significance with 758 degrees of freedom, therefore, the null hypothesis is rejected. This means that there is a significant positive relationship existing between the attitude to AI and effective counselling service. That is, the better the attitude of undergraduate students to AI, the more improved the counselling service and vice versa. By this result, the null hypothesis was rejected and the alternative hypothesis was upheld. This, therefore, shows that the attitude of undergraduate students to AI positively relates with effective counselling service.

Discussion of Findings

In table 1, the result indicated that, the usage of AI does not significantly relate with effective counselling service among undergraduate students in public universities in Cross River State, Nigeria. The result revealed that the usage of AI positively relates with effective counselling service, this result agrees with the findings of Ofem et al. (2025), who studied the use of artificial intelligence (AI) in counselling practices by professional counsellors, focusing on the relationship between awareness and use. The study found that counsellors had high awareness, acceptability, and application of AI in their practices. The findings provide valuable insights for policymakers to promote the integration of AI in counselling to enhance professional practices. The finding also agrees with the findings in the study by Olawade et al. (2024) that examined the integration of Artificial Intelligence (AI) into mental healthcare, focusing on current trends, ethical considerations, and future directions. The review includes recent studies, examples of AI applications, and regulatory frameworks. It uses four databases to search for papers that specifically focus on AI in mental healthcare. By addressing current challenges and shaping future directions thoughtfully, we can effectively utilize AI's potential to enhance accessibility, efficacy, and ethicality in mental healthcare, benefiting individuals and communities. It also agrees with the findings of Purba and Ilmi (2024) aimed to explore how AI can be used to increase the effectiveness, accessibility, and responsibility of guidance and counselling services for students. A literature study reveals that many guidance and counselling students have adopted AI in educational contexts. However, academic ethics must be considered to achieve educational goals effectively.

The result in table 2 showed that the awareness of AI does not significantly relate with effective counselling service among undergraduate students in public universities in Cross River State, Nigeria. The result showed that the awareness of AI positively relates with effective counselling service, this result agrees with the findings of Bozdemir-Ozel and Yakut-Ozdemir (2024), who examined the awareness, readiness, anxiety, and barriers to AI use among physiotherapists. A survey of 413 physiotherapists was conducted, focusing on their knowledge, readiness, and anxiety levels. Results showed that 61% of physiotherapists knew AI in physiotherapy and rehabilitation. Mobile-based applications were the most preferred approach, but the cost of AI-based therapies was the most limiting factor. This result also agrees with the findings of Al-Ghazali's (2024) study aimed to evaluate the awareness, perception, and opinion of AI among pharmacy students at National University for Science and Technology in Oman. Results showed that over 50% of students are familiar with AI's use in scientific research, while 46.4% have a basic understanding of AI technologies. However, over 75% do not know its applications in pharmacy practice, 50.6% do not know AI can support therapeutic diagnosis, and 57% do not know its importance in pharmacy education. A high perception was shown towards AI facilitating pharmacy access

to information (84.2%) and patients' access (80.8%). 92% suggested AI training is needed, and 86.1% recommended using AI in scientific research. The study concluded that AI plays a crucial role in education in pharmacy and health communities. Furthermore, this result agrees with the findings of Blease (2020) who investigated postgraduate clinical psychology and psychotherapy students' familiarity and exposure to AI/ML topics during their studies. Results show that employees' AI awareness affects their perceived overqualification, which in turn relates with their reflection on AI usage and dependence on AI.

The result in table 3 revealed that, the attitude of undergraduate students to AI does not significantly relate with effective counselling service among undergraduate students in public universities in Cross River State, Nigeria. The result showed that the attitude of undergraduate students to AI positively relates with effective counselling service. This result agrees with the findings of Hanna and Hanna (2024), who investigated the perceptions, attitudes and experiences of human therapists regarding the use of Artificial Intelligence (AI) therapy chatbots in mental health care, specifically using Cognitive Behavioural Therapy (CBT). The findings revealed that while AI chatbots offer increased accessibility and consistent treatment, they raise concerns about ethical issues, the therapeutic relationship, and the ability to address complex emotional needs. This result also disagreed, with the findings of Aliyu (2025), who examined the awareness and attitude of chemistry teachers in Sokoto State, Nigeria. Findings revealed a low level of teachers' awareness and poor attitude toward AI tools in chemistry education, with most lacking familiarity with AI applications. However, teachers recognized the value of AI in enhancing student engagement and offering individualized learning experiences. There is a need for targeted professional development programmes to improve teachers' understanding and application of AI in chemistry education.

Conclusion

The usage, awareness, and attitude of undergraduate students to AI positively relates with effective counselling service among undergraduates in public Universities in Cross River State, Nigeria.

Recommendation

Counsellors should leverage on the availability of Artificial Intelligence in their practice. It also recommends that the government, teachers and school administrators create nationwide awareness campaigns and increase the usage, awareness, and attitude to AI via national and social media platforms about the relevance of AI to effective counselling that will generally improve effective learning through the provision of required AI tools.

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