

Use of Ai-Based Health Information Tools and Self-Medication Behavior Among Librarians in Selected Polytechnics in Benue State- Nigeria

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<https://doi.org/10.56201/ijssmr.vol.12no9.2026.pg11.23>

Abstract

This study examined the use of AI-based health information tools and self-medication behaviour among librarians in selected polytechnics in Benue State, Nigeria. The study specifically investigated; the extent of use of AI-based health information tools, determined the prevalence of self-medication, and identified reasons for self-medication among librarians. A descriptive survey research design was adopted. The population of the study comprised 75 librarians from selected polytechnics in Benue State. Total enumeration sampling was used, and all 75 respondents participated in the study, giving a 100% response rate. Data was collected using a structured questionnaire and analysed using frequency counts, percentages, mean, standard deviation, Pearson Product Moment Correlation, regression analysis, and Chi-square. The findings showed a high level of use of AI-based health information tools, with a grand mean of 4.10. Self-medication behaviour was also high, with a composite mean of 4.08. The most commonly reported practices included obtaining medicines directly from pharmacies without a doctor's prescription (92.0%) and treating common illnesses with previously prescribed medicines (90.7%). Saving time and reducing healthcare costs was identified as a major reason for self-medication, with a mean of 4.17. The study further found a positive, moderate and statistically significant relationship between AI-based health information tool use and self-medication behaviour ($r = 0.458$, $p < 0.001$). Regression analysis showed that AI-based health information tool use significantly predicted self-medication behaviour, accounting for 21.0% of the variation in self-medication behaviour. Chi-square analysis showed that gender, age, academic qualification, work experience, and institution were not significantly associated with AI-based health information tool use. The study concluded that the high use of AI-based health information tools was associated with increased self-medication behaviour among the respondents.

Keywords: Artificial intelligence, health information tools, librarians, health information, self-medication.

Introduction

Artificial Intelligence (AI) is a massive innovation in the provision of healthcare and the dissemination of health information around the world. AI-enhanced virtual assistants, chatbots, generative AI platforms, and symptom checkers give health information easily and on the go. Around the globe, AI tools that are commonly used are WebMD Symptom Checker, Babylon Health, ChatGPT, and Ada Health. Those tools are used for information on disease prevention,

symptom check, mental health support, and guidance for treatment. Mesko (2023) emphasizes that AI tools are revolutionizing healthcare by providing fast and easily accessible alternatives to traditional healthcare consultations, while Jiang et al. (2021) see AI-generated health information as health information and educational materials generated by algorithms, in which the role of clinicians is not dominant. Although AI tools are convenient, there is a worry about the dissemination of misinformation, incorrect diagnoses, and unsafe health decisions based on information provided by AI.

The rise in mobile phone penetration, internet connectivity, and digital literacy has led to a surge in AI-powered health information platforms among young and adults in Nigeria. The mobile phone, internet connectivity, and digital literacy have resulted in greater access to AI health information platforms for young and older adults in Nigeria. Online information and the use of AI-powered applications are regular tools for getting health information among not just the Nigerian populace, due to the high health care costs, overcrowded hospitals, long waiting times, and privacy in health-sensitive matters (Adebayo & Hassan, 2023; Olanrewaju & Hassan, 2023). As AI tools for health become more available in Nigeria, polytechnic librarians could be increasingly relying on them for self-care and treatment decisions.

Self-medication is an escalating public health problem in Nigeria and most of the developing countries. Self-medication is defined as the use of medicines to manage self-diagnosed symptoms or illnesses without the guidance of a medical professional World Health Organization, (2000). Individuals often use antibiotics, analgesics, anti-malarial medicines, and self-prescribed medicines like cough syrups without a prescription. Several studies have revealed that people engage in self-medication, either because of perceived minor ailments, financial constraints, peer pressure, easy access to drugs, or confidence that they have in self-diagnosis (Fasuyi et al, 2026). A polytechnic librarian may often rely on the internet, social media, and digital platforms for information about medication in decision-making. As more of them use AI chatbots or online symptom checkers, self-medication could be further encouraged, as they can easily access health advice without having to go to healthcare facilities. When individuals take care of themselves, they can be at great risk for wrong diagnosis, inappropriate drug use, drug interactions, adverse drug reactions, and antimicrobial resistance.

The practice of self-medication in Nigeria has now grown more alarming because of poor drug regulation, easy availability of prescription drugs, the state of healthcare facilities, and the lack of awareness of the dangers of self-medication. The prescription of antibiotics and prescription drugs without a proper medical prescription is common in many health outlets, such as pharmacies and patent medicine stores, and this practice is likely to promote inadequate medicine practice (Akande-Sholabi et al, 2023). This can be exacerbated by the proliferation of health information created by artificial intelligence, which may be incomplete, inaccurate, or misleading and is often conveyed as medical advice. The use of AI in diagnosis and treatment recommendations could potentially lead to self-diagnosis and self-prescribing drugs without a clinical assessment or laboratory testing. While there is growing debate across the world about AI health decision-making, the empirical evidence of the impact of health information tools underpinned by AI on polytechnic librarians' self-medication behaviour in Nigeria is scanty.

People's use of AI tools for health information has grown in popularity as they are a quick, easy, and accessible source of health information. Such technologies may also be a driver of self-medication among the Nigerian population. Previous researches has primarily investigated AI awareness, digital health literacy, and self-medication practices in general, but has paid less attention to the link between AI-generated health information and self-medication behaviour

among polytechnic librarians. Librarians are a key population to watch as they are likely to be a large user of digital technologies for the provision of information to library users and could be highly dependent on AI tools for healthcare decisions. Hence, it is necessary to explore the application of AI in Health Information and its impact on self-medication practices in Nigeria among the public Polytechnic librarians.

Statement of the problem

Existing local research has predominantly focused on documenting general self-medication prevalence, patterns of drug use, and associated demographic factors, without adequately investigating platform-specific digital health behaviors, the role of AI chatbots and generative AI systems in health decision-making, image-based online diagnosis, online self-prescription practices, or comparative differences in AI-enabled self-medication between medical and non-medical students in polytechnic settings (Adebayo & Hassan, 2023; Ebisike et al., 2025). Critically, no published studies from Nigerian polytechnic institutions have systematically examined librarians' use of AI tools to identify symptoms, confirm diagnoses, select medications, or manage adverse drug effects. These evidence gaps are particularly concerning given the rapid proliferation of AI tools, their increasing availability to library staff, and the potential for AI-facilitated self-medication to exacerbate existing medication safety challenges, antimicrobial resistance, and health inequities in Nigeria. Based on the above, this study investigates the use of AI-Based Health Information Tools and Self-Medication Behaviour among public Polytechnic librarians in Nigeria.

Objective of the Study

The main objective of the study is to examine the use of AI-based health information tools and their influence on self-medication behaviour among librarians in selected polytechnics Benue state -Nigeria

The specific objectives are to:

1. Investigate the extent of the use of AI-based health information tools among librarians in selected polytechnics in Benue State, Nigeria.
2. determine the prevalence of self-medication among librarians selected polytechnics Benue state - Nigeria
3. determine reasons for self-medication among librarians of selected polytechnics Benue state – Nigeria

Literature review

Tosin et al (2024) assessed the prevalence, practice, determinants, and adverse effects of self-medication among young people living in a suburban community of Ekiti, Nigeria. The study found a larger proportion of people who practiced self-medication lived within a 1 km trekking distance of the nearest health facility with a doctor ($p=0.044$). The practice of self-medication was statistically related to being a student when compared with gainfully employed and unemployed people ($p=0.006$). Fever (39.8%), abdominal pain (17.3%), and headaches (16.2%) were the top three ailments that necessitated self-medication. Antimalarials (44.0%), antibiotics (25.1%), and antipyretics (16.8%) were high on the list of drugs used for self-medication.

Further, bdelkader et al (2025) assessed the patterns and knowledge of SM among undergraduate health sciences students. The cross-sectional study was conducted on 571 undergraduate health sciences students and found Self-medication was reported by 83.5% of participants. Knowledge

of SM was satisfactory in 56% and unsatisfactory in 44%. Practice scores were unsatisfactory in 70% and satisfactory in 30%. Pharmacies (61.1%) and the Internet (53.5%) were the main information sources. Significant correlations were found between SM and chronic disease ($\chi^2=10.846$, $p=.0009$) and lack of medical insurance ($\chi^2=84.175$, $p=.0001$). Painkillers and antipyretics were the most commonly used SM drugs with 51.7% and 45.4%, respectively. ZainAlAbdin et al (2025) evaluated and compared the performance of ChatGPT-4o mini, Gemini, and Copilot in the context of patient self-care and found ChatGPT-4o mini significantly exceeded Gemini and Copilot in terms of accuracy and presented as mean $\pm$ SD (ChatGPT-4o mini: 4.4 ± 0.6 , Gemini: 4.1 ± 0.8 , Copilot: 3.7 ± 0.7 , $p < 0.001$), patient-centeredness (ChatGPT-4o mini: 4.7 ± 0.6 , Gemini: 4.3 ± 1.0 , Copilot: 4.2 ± 0.8 , $p < 0.001$), and comprehensiveness (ChatGPT-4o mini: 4.6 ± 0.7 , Gemini: 4.2 ± 0.8 , Copilot: 3.4 ± 0.7 ; $p < 0.001$) among 91 minor ailment case scenarios. Also, Mahdi et al (2026) determined the prevalence and pattern of self-medication among university students in Lahore, Pakistan, and assessed its association with AI chatbot and internet-based health information use. The result showed online symptom searching was reported by 363 students (80.5%), internet-based self-diagnosis by 319 (70.7%), and online self-prescription by 254 (56.3%). Medical students had higher odds of online symptom searching, internet-based self-diagnosis, online self-prescription, and antibiotic self-medication. Antibiotics were the most common self-medicated drug category (51.4%), and adverse effects were reported by 255 students (56.5%). Ilomuanya et al (2026) investigated the prevalence and contributing factors associated with self-medication in a semi-urban population in Ogbomosho, Nigeria. A cross-sectional survey was conducted among 211 adults at Bowen University Teaching Hospital, Ogbomosho, and found that the prevalence of self-medication was high (89.1%). Common reasons included minor illnesses (39.8%), convenience (24.6%), and lack of time to see a doctor (7.6%). Paracetamol (77.7%), antimalarials (49.3%), and non-steroidal anti-inflammatory drugs (NSAIDs) (35.1%) were the most frequently used medications, primarily for symptoms such as headaches, fever, and body/joint pains. 53.6% of respondents acknowledged self-medication as risky, yet many still practiced it, showing a disconnect between perception and behavior.

Raja et al (2024) assessed the frequency of self-diagnosis and self-medication in the general population and its associated risks and benefits. The study revealed that the population had self-diagnosed (50.6) or self-medicated (61.9) sometimes. The internet was the primary source of searching (75%), and home remedies were the preferred medications (71.7%). The two primary reasons for this were the scarcity of time and resources.

The literature show that all studies were done from other part of the country and no specific study was done in Benue state focusing on use of AI-Based Health Information Tools and Self-Medication Behaviour among public Polytechnic librarians in Nigeria creating a gap in literature that this study will bridge.

Methodology

The study adopted a descriptive survey research design. This design was considered appropriate because it enabled the researcher to collect data from respondents at a single point in time and examine the use of AI-based health information tools and self-medication behaviour among librarians in selected polytechnics in Benue State, Nigeria. The study was conducted in Benue State, Nigeria, and employed a quantitative research approach. Data were collected using a structured, closed-ended questionnaire developed by the researcher. The questionnaire was designed to capture relevant information on the study.

Study Population

The population of the study comprised librarians in selected polytechnics in Benue State, Nigeria. The selected institutions included Federal Polytechnic, Wannune; Benue State Polytechnic, Ugbokolo; Akawe Torkula Polytechnic, Makurdi; Ashi Polytechnic, Anyii; and Fidel Polytechnic, Gboko. The study population consisted of staff working in the libraries as well as academic staff involved in library and information-related teaching activities within these institutions. The total population for the study was 75 respondents.

Sampling Technique

The study adopted a total enumeration (census) sampling technique. This technique was used because the population size was manageable, thus all the 75 librarians in the selected polytechnics in Benue State were included in the study. Total enumeration ensured adequate representation of all institutions and eliminated sampling bias by allowing every member of the target population to participate in the study.

Sample Size

The sample size for the study consisted of 75 respondents, representing the entire population of librarians and library-related academic staff in the selected public polytechnics in Benue State, Nigeria.

S/N	Institution	Population	Sample Size
1	Federal Polytechnic, Wannune	23	23
2	Benue State Polytechnic, Ugbokolo	16	16
3	Akawe Torkula Polytechnic, Makurdi	18	18
4	Ashi Polytechnic, Anyiin	7	7
5	Fidei Polytechnic, Gboko	11	11
	Total	75	75

Research Instrument

The instrument for data collection was a self-developed structured questionnaire titled “Use of AI-Based Health Information Tools and Self-Medication Behaviour among Librarians Questionnaire (UAIHITSBQ).” The questionnaire consisted of four sections designed to address the objectives of the study. The first section collected information on respondents’ demographic characteristics, including gender, age, academic qualification, years of work experience, and institution. The second section measured respondents’ awareness, accessibility, frequency of use, and purposes for using AI-based health information tools. The third section assessed respondents’ perceptions regarding the usefulness, reliability, accuracy, and limitations of AI-based health information tools. The fourth section examined the extent to which respondents engaged in self-medication practices and the factors influencing such behaviour. The questionnaire items were structured using a five-point Likert scale with the following response options: Strongly Agree (SA) = 5, Agree (A) = 4, Undecided (U) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1.

Statistical Tools for Data Analysis

Data collected was analyzed using appropriate statistical tools. Frequency counts and percentages were used to analyze the demographic characteristics of the respondents, while mean and standard deviation were employed to answer research questions relating to the extent of use of AI-based health information tools, perceived benefits and challenges associated with their use, and self-

medication behaviour among librarians. Pearson Product Moment Correlation (PPMC) was used to determine the relationship between the use of AI-based health information tools and self-medication behaviour among librarians. Regression analysis was employed to determine the predictive influence of AI-based health information tool usage on self-medication behaviour, while the Chi-square (χ^2) test was used to determine the association between demographic characteristics of respondents and their use of AI-based health information tools. All hypotheses formulated for the study were tested at a 0.05 level of significance.

Results

Table 1: Distribution by Institution

Institution	Frequency	Percentage (%)
Federal Polytechnic, Wannune	23	32.0
Benue State Polytechnic, Ugbokolo	16	22.7
Akawe Torkula Polytechnic, Makurdi	18	24.0
Ashi Polytechnic, Anyii	7	9.3
Fidel Polytechnic, Gboko	11	12.0
Total	75	100.0

Federal Polytechnic, Wannune contributed the largest number of respondents, 23 (32.0%), followed by Akawe Torkula Polytechnic, Makurdi, with 18 (24.0%), also, Ashi Polytechnic, Anyii, contributed the fewest, 7 (9.3%). While Fidel Polytechnic, Gboko contributed 11 (12.0%)

Results According to Research Objectives

Objective One

To investigate the extent of the use of AI-based health information tools among librarians in selected polytechnics in Benue State, Nigeria.

Table 2: Extent of Use of AI-Based Health Information Tools

S/N	Item	Mean	SD	Decision
1	I am aware of AI-based health information tools such as ChatGPT, health chatbots, and AI symptom-checking applications.	3.85	1.16	High
2	I have used AI-based tools to obtain health-related information.	4.19	1.00	High
3	AI-based health information tools are easily accessible to me.	4.17	0.98	High
4	I use AI tools to search for information about diseases and health conditions.	4.37	0.77	High
5	I use AI-based health tools to understand medication instructions and treatment options.	4.20	0.94	High
6	I frequently rely on AI-generated health information when making health decisions.	3.79	1.14	High
	Grand Mean	4.10	0.55	High

Table 2 shows a generally high level of use of AI-based health information tools among the respondents. The grand mean of 4.10 is substantially above the criterion mean of 3.00. The highest-rated item was the use of AI tools to search for information about diseases and health conditions ($M = 4.37$, $SD = 0.77$).

Objective Two

To determine the prevalence of self-medication among librarians in selected polytechnics in Benue State, Nigeria.

Table 3: Prevalence of Self-Medication

Self-medication indicator	Agreement	Frequency	Percentage
Used medication without consulting a healthcare professional	Agree + Strongly Agree	50	66.7%
Treat common illnesses with previously prescribed medicines	Agree + Strongly Agree	68	90.7%
Obtain medicines directly from pharmacies without prescription	Agree + Strongly Agree	69	92.0%

The result indicates a high prevalence of self-medication among the respondents. Specifically, 50 (66.7%) agreed or strongly agreed that they had used medication without consulting a healthcare professional. Furthermore, 68 (90.7%) reported treating common illnesses with previously prescribed medicines, while 69 (92.0%) reported obtaining medicines directly from pharmacies without a doctor's prescription.

Table 4: Detailed Self-Medication Behaviour

S/N	Self-medication item	Mean	SD
1	I have used medication without consulting a healthcare professional.	3.89	1.44
2	I usually treat common illnesses using previously prescribed medicines.	4.12	0.88
3	I obtain medicines directly from pharmacies without a doctor's prescription.	4.24	0.96
	Mean	4.08	0.68

The composite mean of 4.08 demonstrates a high level of self-medication behaviour. The highest mean was recorded for obtaining medicines directly from pharmacies without a doctor's prescription ($M = 4.24$, $SD = 0.96$), followed by the use of previously prescribed medicines to treat common illnesses ($M = 4.12$, $SD = 0.88$).

Objective Three

To determine reasons for self-medication among librarians in selected polytechnics in Benue State, Nigeria.

Table 5: Reasons for Self-Medication

S/N	Item	Mean	SD
1	I engage in self-medication because it saves time and reduces healthcare costs.	4.17	0.84

Saving time and reducing healthcare costs was a major reason for self-medication. The item recorded a mean of 4.17 and SD of 0.84. A total of 69 respondents (92.0%) agreed or strongly agreed with the statement.

Perceived Benefits of AI-Based Health Information Tools

Table 6: Perceived Benefits of AI-Based Health Information Tools

S/N	Item	Mean	SD
1	AI-based health information tools provide quick access to health information.	4.25	0.86
2	AI tools help me identify possible causes of health symptoms.	4.36	0.83
3	AI-generated health information improves my ability to make health-related decisions.	4.43	0.76
4	I believe AI health tools provide reliable health information.	4.21	0.76
5	AI-based health tools reduce the need to visit healthcare professionals for minor health issues.	4.05	1.00
Grand Mean		4.26	0.58

The grand mean of 4.26 indicates that respondents generally perceived AI-based health information tools as beneficial. The highest-rated benefit was that AI-generated health information improves respondents' ability to make health-related decisions ($M = 4.43$, $SD = 0.76$).

Relationship Between AI-Based Health Information Tool Use and Self-Medication

Table 7: Pearson Product Moment Correlation between AI Use and Self-Medication

Variables	N	R	p-value	Decision
AI use and self-medication	75	0.458	<0.001	Significant

There was a positive, moderate and statistically significant relationship between the use of AI-based health information tools and self-medication behaviour, $r = 0.458$, $p < 0.001$. Respondents reporting higher AI use tended to report higher self-medication behaviour.

Regression Analysis of AI Use on Self-Medication Behaviour

Table 8: Regression Model Summary

Variable	R	R ²	df	F	B	t	p-value
Constant	0.458	0.210	1, 73	19.42		4.489	<0.001
AI-based health information tool use					0.458	4.407	<0.001

AI-based health information tool use significantly predicted self-medication behaviour, $F(1,73) = 19.42$, $p < 0.001$. The R^2 value of 0.210 indicates that approximately 21.0% of the variation in self-medication behaviour was statistically accounted for by AI use. AI-based health information tool use had a positive and significant predictive effect on self-medication behaviour ($\beta = 0.458$, $p < 0.001$). The regression equation is: Self-medication behaviour = $2.077 + 0.493(\text{AI-based health information tool use})$.

Chi-Square Test of Demographic Characteristics and AI Use

Table 9: Chi-Square Test of Demographic Characteristics and AI-Based Health Information Tool Use

Demographic Variable	High/ Yes	Low/ No	Total	χ^2	df	p-value	Decision
Male	30	8	38	1.582	1	.208	Not significant
Female	34	3	37				
Total	64	11	75				

Age	1.682	3	.641	Not significant
Academic qualification	1.222	3	.748	Not significant
Work experience	3.556	3	.314	Not significant
Institution	7.085	4	.131	Not significant

The chi-square analysis showed that none of the demographic characteristics had a statistically significant association with AI-based health information tool use among the respondents at the 0.05 level. Specifically, gender was not significantly associated with AI-based health information tool use, $\chi^2(1) = 1.582$, $p = .208$. Similarly, age, academic qualification, work experience, and institution were not statistically significant, with p-values of .641, .748, .314, and .131, respectively. Therefore, AI-based health information tool use did not differ significantly according to the demographic characteristics examined.

Discussion of Findings

The findings revealed that librarians in selected polytechnics in Benue State had a high level of use of AI-based health information tools, with a grand mean of 4.10. Respondents particularly used AI tools to search for information about diseases and health conditions ($M = 4.37$), understand medication instructions and treatment options ($M = 4.20$), and obtain general health information ($M = 4.19$). This finding suggests that AI tools are increasingly accessible and convenient sources of health information. It agrees with Mahdi et al. (2026), who reported that 80.5% of university students engaged in online symptom searching and 70.7% used the internet for self-diagnosis. It also agrees with Raja et al. (2024), who found that the internet was the major source of health information, with 75% of respondents using it for health-related searches. ZainAlAbdin et al. (2025) further demonstrated that ChatGPT-4o mini, Gemini, and Copilot could provide relatively accurate, patient-centred, and comprehensive responses to self-care scenarios. However, the usefulness of AI-generated information does not guarantee clinical accuracy; therefore, such information should be verified by qualified healthcare professionals.

The study also found a high prevalence of self-medication. Specifically, 66.7% had used medication without consulting a healthcare professional, 90.7% treated common illnesses with previously prescribed medicines, and 92.0% obtained medicines directly from pharmacies without prescription. The overall mean of 4.08 confirmed a high level of self-medication behaviour. This finding agrees with Tosin et al. (2024), who reported substantial self-medication among young people in Ekiti, Nigeria, particularly involving antimalarials, antibiotics, and antipyretics. Similarly, Ilomuanya et al. (2026) reported an 89.1% prevalence of self-medication among adults in Ogbomosho. Abdelkader et al. (2025) also found that 83.5% of health sciences students practiced self-medication. These similarities indicate that self-medication remains prevalent even among educated populations and may be influenced by convenience, previous experience, perceived minor illness, cost, and accessibility of medicines.

Saving time and reducing healthcare costs was identified as a major reason for self-medication ($M = 4.17$). This agrees with Ilomuanya et al. (2026), who identified minor illnesses, convenience, and lack of time to see a doctor as major reasons for self-medication. Raja et al. (2024) similarly identified scarcity of time and resources as important reasons for self-diagnosis and self-medication. Tosin et al. (2024) also showed that self-medication occurred despite respondents

living relatively close to healthcare facilities, indicating that physical access alone may not prevent the practice. Respondents perceived AI-based health information tools as beneficial, with a grand mean of 4.26. They particularly agreed that AI improved their ability to make health-related decisions ($M = 4.43$), helped identify possible causes of symptoms ($M = 4.36$), and provided quick access to health information ($M = 4.25$). This agrees with ZainAlAbdin et al. (2025), who demonstrated the potential of AI systems to provide useful self-care information. Nevertheless, perceived usefulness should not be equated with professional diagnosis or treatment.

Importantly, AI-based health information tool use had a positive, moderate, and statistically significant relationship with self-medication behaviour ($r = 0.458$, $p < .001$). Regression analysis further showed that AI use significantly predicted self-medication, $F(1,73) = 19.42$, $p < .001$, accounting for 21.0% of the variance ($R^2 = .210$). This finding agrees with Mahdi et al. (2026), who reported substantial online symptom searching, self-diagnosis, and online self-prescription. However, the present finding does not establish that AI use alone causes self-medication, since 79.0% of the variation was attributable to other factors. Finally, gender, age, academic qualification, work experience, and institution were not significantly associated with AI-based health information tool use ($p > .05$). This suggests that AI health-information use was widespread across the demographic groups. Consequently, responsible AI-health-information education should target librarians generally, emphasizing verification of AI-generated information, recognition of AI limitations, avoidance of inappropriate self-medication, and consultation with qualified healthcare professionals.

Conclusion

The study concludes that librarians in selected polytechnics in Benue State demonstrated a high level of use of AI-based health information tools, with a grand mean of 4.10. Respondents commonly used AI tools to search for information about diseases and health conditions, understand medication instructions and treatment options, and obtain general health information. This finding agrees with Mahdi et al. (2026), who reported widespread online symptom searching, internet-based self-diagnosis, and online self-prescription among university students, and with Raja et al. (2024), who identified the internet as an important source of health information. The finding also corresponds with ZainAlAbdin et al. (2026), who found that AI platforms could provide useful and relatively accurate self-care recommendations. The study also established a high level of self-medication behaviour among the librarians, with a composite mean of 4.08. A large proportion of respondents reported treating common illnesses with previously prescribed medicines and obtaining medicines directly from pharmacies without prescriptions. This finding agrees with Abdelkader et al. (2025) and Ilomuanya et al. (2026), who reported high levels of self-medication among their respective study populations. It also supports the evidence that self-medication remains a significant public health concern. However, the present finding differs in magnitude from Agbesanwa et al. (2024), who reported a lower prevalence of self-medication among young people in Ekiti State. Such differences may be associated with variations in population characteristics, setting, and measurement approaches. The study further found that saving time and reducing healthcare costs was a major reason for self-medication, supporting previous findings by Ilomuanya et al. (2026) and Raja et al. (2024), which identified convenience, lack of time, and limited resources as important reasons for self-medication. Importantly, the study established a positive and statistically significant relationship between AI-based health information tool use and self-medication behaviour ($r = .458$, $p < .001$). AI use also significantly predicted self-medication behaviour, accounting for 21.0% of its variation. This finding is consistent with Mahdi et al.

(2026), who reported a relationship between online/AI-based health information use and self-medication practices. The researcher concludes that AI-based health information tools have become an important source of health information among librarians and may contribute to self-medication behaviour when used without professional verification. Therefore, AI should serve as a supplementary source of health information rather than a substitute for qualified healthcare professionals. Responsible AI use, improved digital health literacy, verification of AI-generated health information, and appropriate consultation with healthcare professionals are necessary to reduce the risks associated with inappropriate self-medication among librarians.

Recommendations

Based on the findings of the study, the following recommendations were made in line with the study specific objectives:

1. The management of the selected polytechnics should organize regular digital health-information literacy programmes for librarians. Such programmes should equip librarians with the skills to critically evaluate AI-generated health information, identify misinformation, verify information from credible health sources, and understand the limitations of AI tools in providing health-related advice.
2. Librarians should be encouraged to consult qualified healthcare professionals before using medicines, particularly prescription medicines and medicines previously prescribed for other illnesses. Polytechnic management should also facilitate periodic health education and medication-safety programmes to increase awareness of the risks associated with inappropriate self-medication.
3. The management of the selected polytechnics should promote access to affordable and convenient healthcare services for librarians. Staff should be encouraged to use available health facilities rather than relying solely on AI-generated information or previous prescriptions to manage illnesses without professional consultation.

Limitations of the Study

Based on the study findings, the following limitations were identified:

1. The study was restricted to 75 librarians and library-related academic staff in five selected polytechnics in Benue State. Therefore, the findings may not be generalizable to librarians in all polytechnics or other higher institutions in Nigeria.
2. The questionnaire used a standardized five-point Likert scale, but some items included “Undecided” as the middle response option, while other items used “Neutral.” In addition, some statements did not necessarily require a neutral or undecided position. This inconsistency in the wording of the response options may have affected how some respondents interpreted and answered particular items.
3. The study relied on respondents’ self-reported information concerning AI-based health information tool use and self-medication behaviour. Some respondents may have underreported or over-reported their behaviours, particularly those relating to self-medication, which may have affected the accuracy of the findings.

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