

User satisfaction and challenges on the Available Information Resources in the Medical Library of Enugu State University of Science and Technology

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Abstract

This study seeks to find out the information resources availability and user satisfaction, it is limited to the Enugu state university of science and Technology with undergraduate students as the target respondents. The survey research design was adopted and questionnaire was used as instrument for data collection. The study was anchored by three objectives which are, to find out to identify available information resource in ESUT medical library; if users are satisfied with the resources of the library; and to identify challenges faced by users when accessing available information resources. The research finding reveals considerate information resource available, high level of user satisfaction, unfavorable environment (noise), and inadequate funding to replace obsolete and non-existing facilities required in the library. No library can be self-sufficient in satisfying users' needs also, unfavorable environment (noise), and inadequate funding has directly or indirectly led to poor user satisfaction. The study recommended the provision of information resources in medical libraries; adequate provision of needed library facilities; steady internet, increasing the library opening hour; solar power facilities as back up for stable electricity that would enhance learning and research output of the medical undergraduate students and to make them distinguished professionals in their various fields of endeavour upon graduation.

Keywords

users' satisfaction, information resources and medical library.

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Introduction

Libraries are established to provide information resources and services to support teaching, learning and research in academic institutions such as universities, polytechnics, colleges of education and other similar institutions are referred to as academic libraries. Onunka et al (2023) opined that academic libraries are at the forefront of providing information services to their respective communities which comprise of students, lecturers, and researchers to support teaching, learning and research. The medical libraries according to U.S. National Library of Medicine in Okeke et al (2017) are libraries found in hospitals, medical schools, and in medical or health associations. The author further stated that, they are designed

to assist physicians, health professionals, medical students, patients, consumers and medical researchers in locating health and scientific information to improve, update, access and evaluate health care services. The medical library belongs to the first group of special libraries which is the group that deals with special subjects. As a special library, it is established to serve the medical practitioners, medical students and other people who wish to carry out a research in the field of medicine. Good healthcare depends upon the existence of good communication and information network, hence the establishment of medical libraries (Okoro and Mbagwu, 2008).

Information resources according to Webster's encyclopedic dictionary (1974) are those materials that give information seekers the

accurate and or actual thing needed to know about. Therefore Information Resources are those materials found in a library which are charged with the provision of current and retrospective information services to information seekers. These materials could be in book or non-book forms.

The undergraduate students rely mainly on the medical library which is a component of the university libraries to provide these information sources. The predominant physical format of information resources were print such as books, journals, magazines, newspapers, pamphlets and they were the primary means of providing information services in university libraries. The development in Information and Communication Technologies (ICTs) brought about the emergence of electronic information resources and services in libraries such as Internet services, databases, Compact Disc Read Only Memory (CD-ROM), online catalogue and web resources. There is a paradigm shift in information resource and services in libraries with the advent of ICTs. Okpala and Saleh (2020) noted that the global trend is characterized by a fundamental shift from traditional information environment to an e-environment where emphasis is placed more on acquisition of e-resources such as e-books, e-journals as well as on-line databases.

Access to information is very important in modern world and lack of it leads to some kind of disadvantage or information poverty. Information resources of university libraries are witnessing exponential growth and diversity, best described by Smith (2016) as retooling library information resources to support the innovation of reshaping library practices. In this regard, undergraduate students that depended on university libraries to provide information resources to support their study and learning will face challenges of access and use of information resources and

services. This will impact negatively on their studies and programmes.

Utilization can be achieved if there is adequate access to information. Ternenge and Kashimana (2019) observed that information utilization leads to user's liberation from ignorance. Information accessibility which in turn leads to information utilization helps individuals to behave or act in an informed manner to ensure that there is utilization of resources the library grapples with the challenge of acquiring, processing and making available up to date and relevant resources that would meet users' needs.

The library should as a matter of necessity provide information materials capable of satisfying users' needs. Mohammed, (2006) as cited in Ikenwe and Adegbihero (2014) defined user satisfaction as a stage whereby users' needs have been satisfactorily met by the information resources and services of a library. The information services are to be increased not only to meet user wants and to develop current services but also to foresee clients' requirements in the future. Users will learn to cherish beautiful buildings, experienced personnel, good catalogue, indexes, abstracts, bibliographies when their needs have been satisfactorily met (Ifidon, 2006). Users will visit and use the library resources more effectively if they find its resources and services are satisfactory. Users satisfaction have a significant influence on the use of library resources and services. Thus, to justify the existence of any medical library, such library must provide and make accessible current, adequate and relevant information resources and services to satisfy all users. The success of any library is based on the satisfaction of the information demands of its users (Rubina, 2013). The effectiveness of a library service can be evaluated only by the level to which its services and resources are utilized. Successful user's satisfaction in the library is a function of how efficient the

services are rendered as well as the degree of availability and accessibility of needed information resources.

Although medical librarianship continues to grow in Nigeria, the state, services, and challenges of medical libraries in the country were last reported on in the 1970s and 1980s (Belleh, 1975). The latest of such reports, published in 1985, indicated that there were around twenty medical libraries and twenty-four medical librarians in the country (Obaka, 1985). It also stated that libraries were not considered a requisite part of medical education facilities in the country at that time, contradicting the current reality that the presence of libraries is required for medical school accreditation in Nigeria. Thus, there has been a gap in the literature about developments in the country's medical libraries, except for a recent report highlighting four trends in Nigerian medical librarianship: an increase in the utilization of information and communication technology for library operations, the inclusion of electronic resources in library collections, a shift to electronic means of searching for information, and the replacement of library orientations with information literacy training for users (Suleiman, 2015). However, despite the outdated nature of most documented reports on the state of medical librarianship in Nigeria, some of the challenges that they identified still exist in the country's medical libraries. These challenges include a lack of adequate personnel, central libraries' control over medical libraries in universities, lack of proper library buildings, unavailability of a national library of medicine, need for cooperation among libraries, inadequate bibliographic control of medical literature, user communities' irregular use and non-use of the library, and lack of formal training for medical librarians in the country (Anyaku, 2015).

It is against this backdrop that the researcher embarked on the study to find out available of information resources, level of user

satisfaction, and challenges on the availability of information resources in the medical library as adequate user satisfaction would boost the image of the library before the parent organization and encourage institutional goal attainment.

Purpose of the Study

The objectives of this study include the following:

1. To find out the information resources available in library for medical undergraduate students use.
2. To determine the level of satisfaction with information resources provided in library to medical undergraduate students.
3. To determine the challenges faced by medical undergraduate students in using information resources available in library.

Research Questions

This study seeks to provide answers to the following questions:

1. What information resources are available in library for medical undergraduate students use?
2. What is the level of satisfaction with information resources provided in library to medical undergraduate students?
3. What are the challenges faced by medical undergraduate students in utilizing information resources available in the library?

Medical libraries are specialized information centres for effective organization and dissemination of biomedical and health literature to assist both health professionals and patients in addressing their health information needs. They are established to facilitate patient care, promotion research and teaching in tertiary medical facilities. University Teaching Hospitals and other

tertiary health facilities in Nigeria were established to provide the best possible health care delivery to Nigerians, and usually medical libraries are established to support their set out objectives. The main purpose of these libraries is to acquire a variety of information sources and provide a multiplicity of services to accomplish the user's information needs (Jacintha and Uzoigwe, 2013). The role of medical libraries is primarily to facilitate access to critical scientific and clinical information, supporting healthcare providers in delivering personalized and evidence-based care. Medical library roles are enumerated by Walzer, Stott, and Sutton (2000):

- Provision of current information to users in a quick and cost effective manner
- Provision of balanced perspective on medical issues
- Provision of alternatives to formal learning in form of material support for continuing medical education
- Provision of value services, which improves information delivery
- Dissemination of health information and promotion of healthy lifestyles
- Satisfying the health information needs of the community
- Locating and assisting in the development of relevant information or materials
- Pairing information outreach with other activities in which the populations already engaged e.g. workshops, conferences, community events etc and
- Integrating health information into ongoing programmes of the target population in the community, thereby empowering members of the health community

They serve as repositories of both open access and subscription-based literature, enabling clinicians to interpret complex genomic data and other medical information essential for

diagnosis and treatment (Mansura, 2025). The features of effective medical libraries include comprehensive collections, access to current and relevant journals, and infrastructure that supports both open access and subscription-based resources, often supplemented by institutional subscriptions to bridge gaps in access (Schidmit et al., 2018). It is a healthy practice to seek for user's opinion regularly to help librarians make informed decisions about the quality of services to be rendered. According Ikenwe and Adegbihero (2014) Satisfactory service cannot be delivered without seeking user's opinion. The objectives of these libraries are to ensure equitable access to high-quality medical information, support clinical decision-making, and promote continuous professional development, especially as medicine advances towards more personalized approaches such as genomics (Brancato et al., 2024). Overall, medical libraries are integral to the healthcare ecosystem, aiming to mitigate access barriers and enhance the quality of patient care through information support.

According to Bua, Terhile, and Yawe (2014) satisfying users' needs involves making required information materials present at all times for users' consumption. Furthermore, they posited that staff quality determines the quality of services offered in any library; users are often encouraged to use the library when they realize that it is been run by qualified and experience filled personnel. Therefore, medical libraries must strive to serve their users anytime and to do this effectively, they must acquire and stock current and up-to date materials relevant to their users' curriculum.

Users' satisfaction in medical libraries hinges on multiple factors, including ease of access to relevant resources, the comprehensiveness of collections, and the timeliness of information delivery (Jin and Ryu, 2024). Users, primarily undergraduate students and healthcare providers, value streamlined access to both open access and subscription-based

literature, which directly impacts their ability to make informed clinical decisions. Satisfaction is also influenced by the quality of library services, such as user support, training, and the availability of digital tools that facilitate efficient information retrieval (Khan et al., 2023). Additionally, the extent to which libraries address the growing complexity of medical information—particularly in specialized medical sciences—affects user perceptions of their utility and relevance. Overall, user satisfaction correlates strongly with the library's capacity to provide timely, comprehensive, and easy-to-navigate access to critical medical information, which in turn supports clinical practice and research (Ouajdouni et al., 2024). Libraries must determine how to tailor their resources and services to cope with increasing user expectations for information. Lamenting on user satisfaction Itumeleng, Malcolm and Anis (2014) opined that satisfied users can become habitual users and they can even invite other users to the library. However, dissatisfied users can discourage others from visiting the library. The academic librarian is left with the task of utilizing the tools (both human and material manpower) at their disposal and channeling them towards the achievement of effective user satisfaction because user satisfaction has now been considered by many to be a reliable standard for defining the effectiveness of library services. The task at hand is for the medical librarian to always ensure availability and accessibility of needed information materials which will consequently lead to user satisfaction

The availability of information resources in libraries is a critical determinant of their utility and effectiveness. In medical libraries, access to a broad spectrum of resources—including journals, databases, and open access materials—is essential for supporting clinical decision-making and research (Geda, 2021). However, availability often varies depending on institutional subscriptions, licensing agreements, and the extent of open access initiatives. The study by Perianes-Rodríguez

and Olmeda-Gómez (2019) highlights that nearly half of the relevant journals are openly accessible within a year of publication, but access to subscription-based journals can be inconsistent across different hospital and university systems. This variability can hinder timely information retrieval, especially in fast-evolving fields like cancer genomics. Therefore, ensuring the broad and equitable availability of resources remains a key challenge for medical libraries, impacting their capacity to meet the informational needs of healthcare providers and researchers effectively.

Access and availability of information resources in medical libraries are vital for supporting clinical practice and research, yet they face significant challenges. While open access initiatives have increased the availability of some resources, a substantial portion of critical literature remains behind paywalls, requiring institutional subscriptions for access (Green, 2019). The variability in access across different hospital and university systems can create disparities, potentially impacting the quality of care and research outcomes. The study emphasizes that although libraries often provide high levels of access through subscriptions, gaps persist, especially for rapidly evolving medical field, where timely access to the latest research is crucial (Osama et al., 2023). Overall, ensuring consistent, equitable access to a comprehensive range of resources remains a core challenge, with open access policies and institutional collaborations playing key roles in improving availability (Tennant et al., 2016)

Several challenges are faced by medical libraries in achieving user satisfaction. A primary issue is limited access to subscription-based resources due to financial constraints, which can restrict timely access to essential literature (Nyambura, 2025). Additionally, variability in resource availability across institutions can lead to disparities in service quality, affecting user perceptions of reliability and comprehensiveness. The rapid

growth of specialized medical science further complicates resource provision, as libraries struggle to keep collections current and relevant (Ma et al., 2018). Technological barriers, such as inadequate digital infrastructure or user training, also hinder effective resource utilization. These challenges collectively impact user satisfaction by limiting access, reducing ease of use, and impairing the library's ability to support complex clinical decision-making and research needs. Addressing these issues requires strategic investments, enhanced collaborations, and policies promoting open access to improve user experiences (Mensah, 2024).

Medical libraries play a crucial role in supporting healthcare providers through providing access to comprehensive, current, and relevant medical information, including both open access and subscription-based resources (Chan, 2021). Their features include extensive collections, digital infrastructure, and services aimed at facilitating clinical decision-making and continuous professional development. The primary objectives are to ensure equitable access, support evidence-based practice, and promote research and education. User satisfaction in medical libraries depends on factors such as ease of access, resource quality, and timely information delivery, which are essential for effective clinical practice. However, access and availability of resources are often challenged by financial constraints, institutional disparities, and the rapid growth of specialized fields, leading to inconsistencies that can hinder user needs. The main challenges faced by medical libraries include limited access due to subscription costs, technological barriers, and resource gaps, all of which impact their ability to fully meet user expectations. Addressing these issues requires strategic investments, open access policies, and collaborative efforts to enhance resource availability and user satisfaction.

Research method

Descriptive survey research design was adopted for the study. The population of the study was comprised of 300 level undergraduate students of Enugu State University of Science and Technology, College of Medicine. Total enumerative technique was used to capture the entire 300 level undergraduate students that registered with the medical library in the 2024/2025 academic session in Medicine and Surgery, Anatomy and Medical Laboratory Sciences.

Structured questionnaire was used for data collection. The questionnaire was adapted from a related one developed by Okeke et al (2017), on the status of medical library resources and services in teaching hospitals in Enugu State, Nigeria. The questionnaire was designed under three different subscales known as availability of information resources questionnaire (AIRQ), user satisfaction questionnaire (USQ) challenges associated with the utilization of information resources questionnaire (CUIRQ). The questionnaire was administered with the aid of three research assistants, who were briefed on how to administer the instrument and subsequently collect them. A total of 365 copies of questionnaire were produced and administered to the students, while 361 were returned, which represent 99% return rate. Data collected through distributed questionnaire were analyzed using descriptive statistics, while the data was presented using tables.

Analysis and Discussion

What information resources are available in ESUCOM medical library for medical undergraduate students use? The data for this research question was collected using a structured questionnaire. The analysis was done to determine the frequencies and percentages.

Table 1: Information resources provided in ESUCOM medical library for medical undergraduate students use. (N=361)

S/N	Information resources	Available	Not Available
1.	Print textbook	353 (98%)	8 (2%)
2.	Print Journal	236 (65%)	125 (35%)
3.	E-book	148 (41%)	213 (59%)
4.	E-Journal	123 (34%)	238 (66%)
5.	Newspaper and Magazine	98 (27%)	263 (73%)
6.	Dictionaries	296 (82%)	65 (18%)
7.	Internet	21 (6%)	340 (94%)
8.	Library Website	351 (97%)	10 (3%)
9.	Social media platforms	26 (7%)	335 (93%)
10.	Encyclopedias	353 (98%)	8 (2%)
11.	Databases	308 (85%)	53 (15%)
12.	Lecture notes	22 (6%)	339 (94%)
13.	YouTube channels	43 (12%)	318 (88%)

Key: A- Available, NA- Not Available

Findings from table 1 indicated that print and electronic information resources were made available to them in the library. Among the most available information resources agreed to be available to users in the library, the respondents actually claimed the availability of print textbook (98%) the most while encyclopedias (98%), library website (97%), databases (85%), dictionaries (82%) and print journal (65%) also received positive responses. However, the responses on availability of information resources such as e-book, e-Journal, Newspaper and Magazine,

internet, social media platforms, lecture notes and YouTube channels received negative responses.

The implication of the finding is that undergraduate medical students who do not make use of the information resources cannot improve in reading skills while those who make use of available printed textbooks, print journals, e-book, encyclopedia, dictionaries and also those who visit library website, databases and YouTube channels would improve in reading skills and knowledge enrichment.

Table 2: Response on the level of satisfaction with information resources provided to medical undergraduate students. (N=361)

S/N	Information resources	VHE	HE	LE	NA
1.	Print textbook	289 (80%)	65 (18%)	7 (2%)	0(0%)
2.	Print Journal	196 (54%)	109 (30%)	22 (6%)	0(0%)
3.	E-book	158 (44%)	102 (28%)	95 (26%)	0(0%)
4.	E-Journal	71 (20%)	143 (40%)	90 (25%)	53 (15%)
5.	Newspaper and Magazine	53 (15%)	95 (26%)	179 (50%)	31 (9%)
6.	Dictionaries	71 (20%)	136 (38%)	150 (42%)	0(0%)
7.	Internet	36 (10%)	44 (12%)	71 (20%)	210 (58%)
8.	Library Website	252 (70%)	56 (16%)	44 (12%)	7 (2%)
9.	Social media platforms	10 (3%)	17 (5%)	296 (82%)	36(10%)
10.	Encyclopedias	143 (40%)	158 (44%)	36 (10%)	7 (2%)
11.	Databases	36 (10%)	71 (20%)	109 (30%)	143 (40%)
12.	Lecture notes	2 (1%)	47 (13%)	17 (5%)	292 (81%)
13.	YouTube channels	15 (4%)	40 (11%)	26 (7%)	78 (22%)

Source: Field Survey, 2024. **Key:** VHE- Very High Extent, HE- High Extent, LE- Low Extent, NA- Not All.

According to the findings in Table 2, indicated that the respondents are satisfied with the

information resources made available to them in the library. Among the most satisfying

information resources the respondents claimed to: print textbook (98%) and items (2, 3, 4, 6, 8, 10) received a positive responses of 84%, 72%, 60%, 58%, 86% and 84% respectively. However, the response on the level of satisfaction on information resources such as newspaper and magazine and the responses on items (7, 9, 11, 12, 13) received negative responses.

The implication of this finding is that the aim of establishing medical library in ESUCOM has not been fully achieved because the use of information resources is to derive optimal satisfaction since the information resources serve as tools which help to equip the medical undergraduates with the requisite skill and knowledge to practice in their various field of endeavours.

Table 3: Response on the challenges faced by medical undergraduate students in utilizing information resources in medical library.

S/n	Challenges	Yes	No	Ranking
1	Lack of comfortable library facilities	231 (64%)	130 (36%)	6 th
2	Insufficient time to seek information	172 (48%)	189 (52%)	8 th
3	Bad attitude of library personnel	109 (30%)	252 (70%)	9 th
4	Inadequate awareness of information Resource	281 (78%)	80 (22%)	4 th
5	Unfavorable environment (Noise)	308 (85%)	53 (15%)	2 nd
6	Unavailability of internet facilities	342 (95%)	20 (5%)	1 st
7	Irregular electricity supply	300 (83%)	61 (17%)	3 rd
8	Out dated or obsolete library resources	220 (61%)	141 (39%)	7 th
9	Short duration of library opening hour	262 (73%)	99 (27%)	5 th

Source: Field Survey, 2024. **Key:** Yes or No

Findings on Table 3 revealed that the challenges encountered by undergraduate students when using information resources available in medical library was unavailability of internet facilities, unfavorable environment (noise), irregular electricity supply, inadequate awareness of information resources, short duration of library opening hour, lack of comfortable library facilities, out dated or obsolete library resources; all received positive response rate of 95%, 85%, 83%, 78%, 73%, 64% and 61% respectively. However, the respondents refuted that the bad attitude of library personnel and insufficient time to access information were not posing any challenge toward user satisfaction on the use of available Information Resources in the Medical Library. This finding is in contrast to the study by Soria et al (2014) in their study which posited that library opening hour limits undergraduates access to information and regulates the time that students can visit the library for information.

Discussion of the findings

The study revealed that among the 13 listed information resources expected in a medical library, only 6 (print textbook, encyclopedias, library website, dictionaries, databases, print journals) are said to be available in the library. This is in line with Schidmit et al. (2018) findings that comprehensive collections, access to current and relevant journals, and infrastructure that supports both open access and subscription-based resources, often supplemented by institutional subscriptions to bridge gaps in access are the features of effective medical library.

Furthermore, these undergraduate students access and utilize the library and its information resources, they are very satisfied with these print textbook, print journal, e-book, e-journal, library website, dictionaries and encyclopedias respectively. The databases, YouTube channels, internet and social media platforms level of user satisfaction were low probably because of irregular electricity supply, unavailability of internet facilities and out dated or obsolete

library resources. Nyambura (2025) agrees to the above findings that limited access to subscription-based resources due to financial constraint can restrict timely access to essential literature.

Finally, the study revealed that unfavorable environment (noise), unavailability of internet facilities, irregular electricity supply, inadequate awareness of information resource, short duration of library opening hour, lack of comfortable library facilities and out dated or obsolete library resources were the major challenges among others which were associated with access and use of information resources in medical library.

Conclusion and Recommendation

Arising from the findings of the study, it could be concluded that information resources were made available to medical undergraduate students in medical library under study. It was also discovered that medical undergraduate students were satisfied with the information resources made available in the medical library to enhance teaching, learning and research. However, challenges that militate against the effective access and use of the information resources made available have also been identified.

Thus the university objective of establishing the medical library to ensure the provision of information resources and services to her medical undergraduate students at ESUCOM is yet to be fully achieved. Thus, provision of information resources in medical libraries would enhance learning and research output of the medical undergraduate students and to make them distinguished professionals in their various fields of endeavour upon graduation. However, all these cannot be achieved without adequate provision of needed library facilities, steady internet, increasing the library opening hour and solar power facilities as back up for stable electricity.

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