

# Doctor's Awareness and Perception of Medical Library Resources and Services: A Case Study of Delta State University Teaching Hospital (Delsuth), Nigeria

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## ABSTRACT

The study is an investigation of doctor awareness and perception of the information resources and services in the Delta State University Teaching Hospital (DELSUTH), Oghara. The descriptive survey method has been employed for the study. Also, with the aid of a questionnaire, data has been collected from doctors (academic staff) at DELSUTH, and analysed using a simple percentage. Findings reveal that the doctors are mostly aware of the availability of textbooks and reprographic services in the Medical Library. However, there is a perception of inadequacy of the information resources and services. The study also observes that although the doctors perceive information to be of clinical value and provide new knowledge, the information is not always relevant, accurate and current.

## KEYWORDS

DELSUTH, Library Resources, Library Services, Medical Library, Nigeria Oghara, Teaching Hospital

## INTRODUCTION

The significance of information to medical doctors is invaluable because medical practice has to do with the life and death of human beings and is therefore very sensitive in nature (Nwfor-Orizu, Anyaoku & Onwudinjo, 2015). It is a fundamental requirement that doctors working in teaching hospitals have access to quality information resources and services and it is the responsibility of the medical library attached to the hospital to provide this support. There is the increased need for information by doctors, not only to improve patients care but also to incorporate research into practice and improve on their teaching and research activities. According to Gallant, Irizarry, Boone and Kreps (2011), health professionals seek information from sources that are reliable, convenient and easy to access and it is the duty of medical libraries to meet this need.

To meet their user's information need, medical libraries need to be well stocked with relevant information resources and partake of effective library services. The medical library helps to provide access to medical related information, organise it, as well as help her users to find the information they need. These specialised libraries are established in medical schools, hospitals, research organisations, and offices of medical associations to provide accurate, fast and reliable health information to health care professionals, medical students, researchers, paramedical staff and patients. Medical libraries are indispensable for organizations such as teaching hospitals which deal with the passing on of knowledge in the health sciences (Haq, 2009).

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However, having information resources and rendering quality library services in a library is one thing, making adequate use of these resources and services by users is a different issue. Several factors and circumstances like awareness, accessibility and availability may influence the use of a library's resources and services. Surveys on users' awareness and perception of information resources and services abound, but none is found to have focused on the doctors in this part of Nigeria. Thus the impetus to carry out this survey arises from the need to practically illustrate the extent of awareness and perception of doctors about the information resources and services provided by the medical library and their perception about how valuable they think the information resources are to their work in the Delta State University Teaching Hospital (DELSUTH), Oghara.

## RESEARCH QUESTIONS

1. What types of information resources and services are doctors aware of in the DELSUTH Medical Library?
2. What is the perception of doctors about the adequacy of the information resources and services in the DELSUTH Medical Library?
3. What is the perception of doctors about the value of the information resources available in the DELSUTH Medical Library?

## REVIEW OF RELATED LITERATURE

Medical libraries, according to Ali (2010), are libraries found in hospitals, medical schools, and in medical or health associations. Their responsibilities among others include assisting physicians, health professionals, medical students, patients and medical researchers in locating health and scientific information to improve, update, access and evaluate health care services. Their information resources, clientele and services are directed towards a specific community and subject respectively (Ekene, Agbo & Onyekweodiri, 2016). The information resources and services offered by medical libraries are mainly health based. According to Okiki (2013) information resources refer to print and electronic materials that could be sourced and accessed manually or electronically by users. The goal of information services on the other hand, is to provide the information sought by the user. It seeks to anticipate as well as meet user needs (Reference and User Services Association RUSA, 2012). According to this definition, information services are offered with regards to users' needs and requests.

Health information can be described as that knowledge, fact and news generated from various sources, necessary for good physical and mental condition of human beings (Benton 2009). Information resources are those materials found in a library which provide current and retrospective information to information seekers (Iwhiwhu & Akporhonor, 2009). They are also referred to as information carriers irrespective of the form or format of presentation (Aina, 2004). Information in print formats include books, periodicals, maps, bibliographies, indexes and abstracts, photographs, government documents, technical reports, etc. In addition to printed materials, information is also produced in other formats (non-print) such as audio, audio-visual, multimedia, microform and electronic books, journals, images, texts/records from the Internet.

Explaining further, Abubakar (2012) stresses that information resources that are health related are the medium of communication between scientists who conduct healthcare and biomedical research and doctors who use their results in medical practice and related purposes. These resources are text or print resources, internet or World Web resources and human resources. Medical text or print resources provide information or knowledge in printed format such as books, journals and grey literature. Books have been in existence and use for centuries now and are regarded as traditional sources of health information. They form the core collection of medical libraries. Medical journals are primary sources of health information as they contain authors own reports of their own studies.

The knowledge contained in them represents the most recent in the field (Nworgu, 2006). In order to meet the twin purposes of providing adequate information resources to students and health professionals, the medical library must have these information resources, both in print and electronic formats. Anyaoku (2015) observed that because medical libraries of today are operating in an age of electronic and remote access to information, technology has fundamentally altered library usage patterns and have seen dramatic changes in the preference and propensity for electronic resources and remote access to these collections.

Similarly, the Hennepin County Medical Center (2018) explained medical library services as all activities of the library that support patient care, education and research activities of hospital staff by providing quality cost effective services that enhance the mission and vision of the hospital. These services may range from consultation services by librarians on literature searches, training and consultation in the use of databases, and other information sources available, provision of assistance in database searching or accessing electronic journals and books and library loan services. Other services may include reprographic or photocopying services, indexing services, as well as interlibrary loan services.

The concept of library services and values can be defined as value for users in the level of support and services provided, value for the parent institution in contribution to institutional missions and goals, or economic value for return on investment (Namugera, 2014). A study of information sources and services of the National Medical Library in India carried out by Hussain, Kumar, Fatima and Deeopak (2010) observed among other things that majority of the users who visited the library daily, did so to make use of the lending services; also, most users used IT based services. In a similar research, at the Medical Sciences Library (MSL). Renwick (2005) discovered that 97% of the total respondents were computer users and had high awareness of the electronic resources made available by the MSL but there was the low use of MSL-specific resources, supporting the suggested problem of underutilisation. Major findings arising from the study by Okeke, Eze, Eze, and Asogwa (2017) revealed that even though some of the required resources and services were available and provided by the medical libraries in Enugu, most of the required resources and services were not adequate.

The selection of information sources was somewhat surprising to Burton (1995), as his study revealed that the most heavily used resources were textbooks and journals, cited by 224 (77%) and 232 (80%) of respondents, respectively. The services of a librarian were used by 113 (40%), especially older respondents. MEDLINE on CD-ROM was used by 104 (35.9%) respondents. Considering that Index Medicus (print format) was used by only 42 (14.5%) respondents is a strong indication that computerised resources were increasingly being demanded.

In another instance, Ekene, Agbo and Onyekweodiri (2016) stated that although the medical libraries provided the services, the responses of users showed that not all of them were adequate even though they were available. The findings show that reference services, searching medical databases and current awareness services are rated by the respondents to be the most adequate of all the services listed. Also, the study by Baro, Endouware and Ubogu (2011) revealed that a majority of the respondents were not aware and consequently did not use the information resources in some academic libraries.

According to Marshall, Morgan, Thompson and Wells (2014), of the 4,520 respondents, 75% suggested that they definitely or probably handled patient care differently after making use of information obtained from the library. This led the authors to conclude that doctors valued the use of the information resources they used. Furthermore, in a multivariate analysis, three summary clinical outcomes measured value and impact. Analysis of the characteristics of information used and recognition of the value of information from 598 valid responses (275 physicians, 55 residents, and 268 nurses) reveal that although the overall recognition of the value of information is relatively modest, concrete changes in clinical practice are found in some areas (Sakai, Sato, Sato and Watanabe, 2018). Sang-il, Hayoung, Jeong-Whun, Hee, Eun-Young, Yoon and Kyooseob (2012) also examined physicians' perceived needs, benefits and concerns regarding health information exchange in South

Korea. The results revealed that physicians' overall perceptions were positive despite their concerns about information safety and security.

Another value of medical library resources is seen in their accessibility. Patient care outcomes were examined in relation to four information access methods such as asking librarian(s), performing searches in a physical library, searching libraries' web sites and searching library resources on an institutional intranet. The findings of the study showed that all library access methods have consistent positive relationships with the clinical outcomes, providing evidence that library services had a positive impact on patient care quality (Marshall, Morgan, Thompson & Wells, 2014). Marshall, Sollenberger, Easterby-Gannett, Morgan, Klem, Oliver, Thompson, Romanosky and Hunter (2013) described research conducted in a web-based survey of physicians, residents, and nurses. Three quarter of the respondents suggested that they had definitely or probably handled aspects of the patient care situation differently as a result of the information they received from the library. Among the reported changes were pieces of advice given to the patient (48%), diagnosis (25%), and choice of drugs (33%), other treatment (31%), and tests (23%). Almost all of the respondents (95%) agreed that the information resulted in a better-informed clinical decision. Respondents' reports suggested that the information allowed them to avoid the following adverse events: patient misunderstanding of the disease (23%), additional tests (19%), misdiagnosis (13%), adverse drug reactions (13%), medication errors (12%), and patient mortality (6%).

Burton (1995) asked some physicians to indicate how the information they received from the library during the last six months were used. The physicians were availed the opportunity to choose from ten different uses including space in which to add other reasons. Respondents were also requested to indicate as many uses as they liked. Their response revealed that the most frequent uses, cited by 269 (92.8%) were concerned with patient diagnoses, 176 (60.7%) had used the library to confirm patients diagnoses and 93 (32.1%) were persuaded by the information received to change their diagnoses. In another study, Abubakar (2012) stated that doctors indicated that the information they used from the library were of clinical value.

### **Delta State University Teaching Hospital (DELSUTH), Oghara, Delta State**

The Delta State University Teaching Hospital (DELSUTH) is a renowned in virtually every area of adult medicine. Situated in Oghara, in the heart of Delta State, Nigeria, DELSUTH is considered highly for its many specialties such as radiology, community health, urology, psychiatry, surgery. Other areas of specialty include paediatrics, obstetrics, pathology, pharmaceutical sciences, emergency medicine, family medicine, anaesthesia, intensive care and physiotherapy.

As a Teaching Hospital of Delta State University (DELSU), DELSUTH has a commitment to furthering the education of health care professionals and providing quality primary and secondary health care service to the surrounding communities. DELSUTH encompasses the main hospital building boasting a 180-bed ultra-modern specialist center, the administrative block, the pathology building, the nursing school, engineering and other medical technological facilities. The DELSUTH Medical Library is housed in the main hospital complex building, at the middle of the first floor, making it very accessible to all categories of library users, which include doctors, nurses, medical students and patients. Funded by the Hospital Management Board, the Medical Library is a storehouse of several types of reading materials (i.e medical books, magazines, maps, electronic resources, such as HINARY, Proquest and Ebscohost databases) as well as electronic books and journals. Other information types include medical dictionaries, medical encyclopaedias, newspapers and magazines.

### **METHODS**

The study employs the descriptive survey method. The population for the study is 72 consisting of all the doctors (academic staff) from eight departments at the Delta State University Teaching Hospital (DELSUTH) in Oghara, Delta State. The accidental sampling technique was employed to ensure

that as many doctors as possible were covered as at the time of the distribution of the instrument. A questionnaire was the instrument used for collection of data. This instrument is in part adapted from a study conducted on the value and impact of library and information services on patient care by Marshall, Sollenberger, Easterby-Gannett, Morgan, Lou Klem, Cavanaugh, Oliver, Thompson, Romanosky, Hunter, (2013) and in part self-constructed.

The instrument, titled “Awareness and Perception of Medical Library Resources and Services Questionnaire (APMLRSQ),” is divided into four sections, A-D. Section A, is an attempt to retrieve information about the biographic data of the doctors, while Section B sought to find out doctors’ knowledge of available information resources and services. Section C focused on the doctors’ perception of the adequacy of information resources and services while Section D was on the perceived value of the information resources to the doctors’ work. 66 copies of the instrument were returned and found usable for the study, this gave a response rate of 91.6%. The data were analysed using simple percentage.

## RESULTS

Table 1 depicts the demographics of clinical faculty members.

Table 1. Demographics of clinical faculty members

Demographics Characteristics	No.	%
<b>Gender</b>		
Male	55	83.3
Female	11	16.6
<b>Academic Rank</b>		
Professors	15	22.7
Readers	8	12.1
Senior Lecturers	17	25.7
Lecturer I	18	27.2
Lecturer II	8	12.1

Table 2 highlights the types of information resources and services available in the Medical Library and the ones that doctors are aware of. The results show that the doctors are mostly aware of medical textbooks 64 (97%), while, the doctors are least aware of e-journals, conference and seminar papers 3 (4.5%) respectively. The table also shows that 43 (65.2%) of the doctors are mostly aware of the availability of reprographic services offered by the Medical Library. With the score of 0 respectively, the result shows that the doctors are least aware that the Medical Library offers services such as document delivery services, current awareness services, selective dissemination of information and printing services.

Table 3 captures the percentage scores of doctor’s perception about the adequacy of the information resources and services in the DELSUTH Medical Library. It is seen that, except for reprographic services 40 (60.6%), all the other information resources and services, recorded higher percentages for disagree. This implies that majority of the doctors perceive that the information resources and services are inadequate.

Table 4 presents the perception of doctors about the value of library’s resources and services. 37 (56%) of the doctors agreed that the information they received from the library provided new knowledge and 36 (54.5%) of the doctors agreed that information received from the library was of

**Table 2. Types of information resources and services that doctors are aware of in the DELSUTH Medical Library**

Resources/Service	Responses			
	Yes	%	No	%
Medical Textbooks	64	97	2	3
Medical E-Books	12	18.1	54	81.8
Monographs	13	19.6	53	80.3
Medical Encyclopaedias	5	7.5	61	92.4
Medical journals (Local and International)	12	18.1	54	81.8
E-journals	3	4.5	63	95.5
Magazines and Newsletters	9	13.6	57	86.4
Medical databases such as – Medline, Hinari, Proquest etc	18	27.3	48	72.7
Conference and seminar papers	3	4.5	63	95.5
Dictionaries (Subject and general)	17	25.7	49	72.2
Atlas	10	15	56	85
Technical Reports	7	10.6	59	89.4
Reference Services	11	16.6	55	83.4
Document Delivery Services	0	0	66	100
Computerized literature search	9	13.6	57	86.4
Internet browsing	4	6	62	94
Searching medical databases	6	9	60	91
Current awareness services	0	0	66	100
Selective dissemination of information	0	0	66	100
Reprographic services	43	65.2	23	34.8
Inter library loan	0	0	66	100
Library lending services	12	18.2	54	81.8
Printing Services	0	0	66	100

clinical value to them. The table also shows that a good number of the doctors, 52 (78%) indicted lack of value because the information received from the library was not current.

## DISCUSSION

From the list of 23 available information sources in the DELSUTH Medical Library, respondents were required to indicate the resources that they are aware of. For information resources, medical textbooks received the highest level of awareness, while among the information services category, the doctors were mostly aware of reprographic services. These information resource and service are two of the most basic of any library resource and service which probably explains their popularity among the doctors. On the other hand, the doctors indicated that they were not aware of library services such as inter-library loan services and printing services. Equally important to mention is the very low level of awareness as regards electronic information resources such as electronic journals, electronic books and medical related databases. Even though the library has these resources the doctors are not aware of them. This is a very important finding given the importance of electronic information resources in

**Table 3. Perception of doctors about adequacy of the information resources and services in the DELSUTH Medical Library**

Information Resources and Services	Agreed	%	Disagree	%	Decision
Textbooks and monographs	17	25.7	49	74.2	Inadequate
Medical Journals, newsletters and magazines	12	18.1	37	56	Inadequate
Medical databases and electronic resources	8	12.1	58	87.9	Inadequate
Conference proceedings and government publications	11	16.7	55	83.3	Inadequate
Medical reference sources like encyclopaedias and dictionaries	26	39.4	40	60.6	Inadequate
References services	9	13.6	57	86.3	Inadequate
Document Delivery Services	0	0	66	100	Inadequate
Computerized literature search	0	0	66	100	Inadequate
Internet browsing	2	3	64	97	Inadequate
Searching medical databases	2	3	64	97	Inadequate
Current awareness services	0	0	66	100	Inadequate
Selective dissemination of information	0	0	66	100	Inadequate
Reprographic services	40	60.6	26	39.4	Adequate
Inter library loan	0	0	66	100	Inadequate
Library lending services	8	12.1	58	87.9	Inadequate
Printing services	0	0	66	100	Inadequate

**Table 4. Perception of doctors about the value of library's resources and services**

Value of Library's Resources and Services	Agreed	%	Disagree	%	Remark
The information I received from the library was accurate	18	27.2	48	72.7	Not Valuable
The information I received from the library was relevant	23	35	43	65.1	Not Valuable
The information I received from the library was current	14	21.2	52	78.8	Not Valuable
The information I requested from the library was provided on time	28	42.4	38	57.6	Not Valuable
Having the information I requested for changed my decision	34	51.5	32	48.5	Valuable
The information I received from the library was of clinical value	36	54.5	30	45.5	Valuable
The information I received from the library provided new knowledge	37	56	29	43	Valuable
The information I received from the library refreshed my memory of details or facts	34	51.5	32	48.5	Valuable

this information age. A possible explanation offered for the reason why electronic resources are not popular among the doctors was that there was constant electricity cut to the library, while textbooks are very popular among doctors because they are readily available and accessible. This finding further implies that although some of these information resources and services are available in the DELSUTH Medical Library, the doctors are unaware of their availability. This finding is in contrast with the finding of Ekene, Agbo and Onyekweodiri (2016) that the medical library users are aware of reference services, medical databases, current awareness services, photocopying and printing are available for them. Similarly, at the Medical Sciences Library (MSL), Renwick (2005) discovers that a majority of the respondents have high awareness of the electronic resources made available by the MSL but low use of MSL-specific resources supporting the suggested problem of underutilisation.

There was also a perception of inadequacy of the information resources and services in the DELSUTH Medical Library among the doctors. It is striking to observe that even though the doctors indicated awareness for textbooks, this finding presents a perception of inadequacy of this popular information resource. The only information service that was rated as adequate by the doctors was reprographic services. The doctors' perception of adequacy of reprographic service may be associated with the fact that the library's photocopying services is the only one available within the hospital building. While for most of the other information resources and services, it is understandable that a perception of inadequacy could well be the result of lack of awareness that these information resources and services are even available in the first place. This result corroborates the finding of Okeke, Eze, Eze, Asogwa (2017), that even though some of the required resources and services are available in the two medical libraries in Enugu, most of the required resources and services were not adequately provided by these libraries. Ranganadham and Babu (2012) also observe that a majority of the respondents in their study perceive that there are adequate resources in their libraries.

Lastly, the doctors were asked to indicate their perception about the value of the information resources and services received from the Medical Library. Most of the doctors agreed that the information they received from the library provided new knowledge and that information received from the library was of clinical value to them. However, the doctors feel that the information received from the library was not current. The import of this finding is that the information is mostly not up to date. This finding confirms the result presented by Abubakar (2012) that the information received from the library is of clinical value.

## CONCLUSION AND RECOMMENDATIONS

The extent of lack of awareness of most of the Medical Library's information resources and services is disturbing. There is an obvious low level of awareness of the information resources and services available and a perception of inadequacy among the doctors at DELSUTH. Considering the importance of the work of doctors in the Teaching Hospital, this study has observed that doctors are not relying much on the information resources and services rendered by the Medical Library. Based on this finding, the study recommends that:

1. The library should endeavour to find creative ways of letting the doctors and other hospital staff know of the information resources and services that the library has to offer. The researcher is left wondering if the Library engages in any form of awareness activity to make the Hospital environment know of the resources they have and services they can render;
2. The library should embark on aggressive collection development activities, this will enable adequate provision of medical textbooks and other information resources that will attract the doctors to the library;
3. The administration of the Medical Library should create awareness of their selective dissemination of information services and package information resources in ways that it will get to doctors on time.



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## APPENDIX: AWARENESS AND PERCEPTION OF MEDICAL LIBRARY RESOURCES AND SERVICES QUESTIONNAIRE (APMLRSQ)

Sir/Madam,

I am a researcher currently carrying out a research on “Awareness and Perception of Medical Library Resources and Services at the Delta State University Teaching Hospital (Delsuth), Nigeria.” Please, respond to the following questions as accurately as possible as every information you supply will be treated in strict confidence and used for academic purpose only.

Yours sincerely,

Ikolo, V.E.

Section A: Biographic Data

1. Sex: Male Female
2. Academic Rank:

Professor

Readers

Senior Lecturers

Lecturer I

Lecturer II

**Instruction:** Please carefully read the statement below and tick where appropriate.

**Instruction:** Please carefully read the statement below and in the columns provided against each statement, tick on the most appropriate response. The columns are as follow:

Strongly Agree = SA

Agree = A

Disagree = D

Strongly Disagree = SD

Undecided = U

Table 5. Section B: Available information resources and services

I am aware that the following information Resources/Service are available in the Medical Library	Yes	No
Medical Textbooks		
Medical E-Books		
Monographs		
Medical Encyclopaedias		
Medical journals (Local and International)		
E-journals		
Magazines and Newsletters		
Medical databases such as – Medline, Hinari, Proquest etc		
Conference and seminar papers		
Dictionaries (Subject and general)		
Atlas		
Technical Reports		
Reference Services		
Document Delivery Services		
Computerized literature search		
Internet browsing		
Searching medical databases		
Current awareness services		
Selective dissemination of information		
Reprographic services		
Inter library loan		
Library lending services		
Printing services		

**Table 6. Section C: Adequacy of the information resources and services**

I think the following Library Resources/ Services are adequate	SA	A	D	SD	U
Textbooks and monographs					
Medical Journals, newsletters and magazines					
Medical databases and electronic resources					
Conference proceedings and government publications					
Medical reference sources like encyclopaedias and dictionaries					
References services					
Document Delivery Services					
Computerized literature search					
Internet browsing					
Searching medical databases					
Current awareness services					
Selective dissemination of information					
Reprographic services					
Inter library loan					
Library lending services					
Printing services					

**Table 7. Section D: Value of library's resources and services**

Value of Library's Resources and Services	SA	A	D	SD	U
The information I received from the library was accurate					
The information I received from the library was relevant					
The information I received from the library was current					
The information I requested from the library was provided on time					
Having the information I requested for changed my decision					
The information I received from the library was of clinical value					
The information I received from the library provided new knowledge					
The information I received from the library refreshed my memory of details or facts					

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