

AWARENESS AND USE OF OPEN ACCESS RESOURCES BY BASIC MEDICAL SCIENCES LECTURERS

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Abstract

Purpose: This study investigated the awareness and use of open access resources by lecturers in Faculty of Basic Medical Sciences, Ambrose Alli University, Ekpoma

Design/Methodology/Approach: The descriptive survey design was adopted and questionnaire was used as instrument for data collection. Total enumeration technique was adopted to cover all the 71 lecturers and academic technologists in the faculty. Out of the 71 copies of the questionnaire administered, 67 copies were retrieved and analyzed using percentages, charts, means and standard deviations.

Findings: The findings of the study revealed that all the respondents were aware of the existence of open access resources. The study also revealed that bulk of the respondents became aware of open access resources through library personnel. It was further revealed that the lecturers use E-journals ($\bar{X}=3.6$), E-Books ($\bar{X}=3.2$), E-newspapers ($\bar{X}=3.4$), Subject gateways ($\bar{X}=3.3$), and E-databases ($\bar{X}=3.0$) which show very high extent however, items such as audio-video lectures received the lowest mean rating of 1.8 which shows that it is used to a low extent. Also, revealed was that 67 (100%) of the respondents indicated that they use open access resources for the purpose of searching for relevant literature for research; for downloading articles; Teaching; to update knowledge and for current awareness purposes, among other. Furthermore, it was discovered that the factors militating against use of open access resources are proliferation of open access resources, authenticity of information and lack of quality control.

Practical Implications: based on the findings, it was noticed that there is need for proactive involvement of the librarians in literacy programme and attendance at seminars/workshops on use of open access resources among others.

Originality/Value: the value of this article lies in its identification of awareness and use level of open access resources by lecturers in Basic Medical Sciences

Keywords: Open Access, Use of Open Access Resources, Basic Medical Science, Lecturers, Electronic Resources, Ambrose Alli University

Paper Type: Empirical research.

Introduction

Academia in contemporary times has been significantly transformed due to the influence of adoption of open access publication model which provides different ways of disseminating research findings to the world. Accessibility and openness have been made possible with Open Access initiatives in place (Oyedipe, Adekunmisi & Akinbode, 2017). Open access scholarly publication refers to various procedures through which scholars showcase and exchange information basically for knowledge creation (Dulle, Minish-Majanja & Cloete, 2010). Open

access allows free and just in time access to information resource in various formats and forms. According to Yang and Li (2015), "open access information resources are laden with the benefits of providing researchers with access to relevant and up-to-date digital information, wherever they are located in a relatively easier, faster, cheaper and desired format". "Open access resources are those that are freely available on the Internet, permitting users to read, download, copy, distribute, print, search or link to the full text of these articles, crawl them for indexing, pass them as data to software, or

use them for any other lawful purpose, without financial, legal or technical barriers other than those inseparable from gaining access to the Internet itself” (Okoye & Ejikeme, 2011). In the same vein, Suber (2013), aver that open access resources are “online research outputs in the scholarly publication format, which are free of all restrictions on access such as subscription fees and free of many restrictions on use, such as copyrights and license restrictions”.

According to Yang and Li (2015), “Open Access (OA) is a coping strategy spearheaded by the scholarly community in their effort to free themselves from exploitation and restrictions of the commercial publishers”. In other words, OA provides potential avenue for disseminating scholarly research output and information especially for the developing countries toward bridging the digital divide. Suber’s (2013) definition shows that Open access goes beyond scholarly publications and the following characteristics were pointed out:

- ❖ “It is free availability of scholarly publication
- ❖ It is free of copyright and licensing restrictions
- ❖ Materials are available online or on the internet
- ❖ Materials are usually full text or bibliographic information
- ❖ Materials can be accessed by anybody without any discrimination
- ❖ Open Access contents can be in any format from texts and data to software, audio, video, and multi-media, scholarly articles and their preprints”

Studies on open access resources from different scholars and by different categories of users showed that most researchers still remain skeptical regarding the use of Open Access resources due to copyright and lack of awareness. According to Jain (2012) awareness precedes use and awareness is central to users’ acceptance of technologies as this determine their attitude and behaviours. “Awareness raises consciousness and knowledge about certain technology and its personal and social benefits” (Obuh & Bozimo, 2012).

Today, scholarly publishing is now an avenue for disseminating research output as well as publishing model. As much as this is true, it is not known whether lecturers in basic medical sciences are aware of or use open access information resources despite the ease, convenience, and accessibility they offer and which are major factors influencing their use. This perceived gap in knowledge has made the present research timely.

Objectives of the Study

The primary objective of the study is to investigate the level of awareness and use of open access resources by lecturers in Basic Medical Sciences in Ambrose Alli University, Ekpoma, Edo State. The specific objectives are to:

- i. determine the level of awareness of open access resources among lecturers;
- ii. find out how lecturers became aware of open access resources;
- iii. find out the extent to which the lecturers in Basic Medical Sciences use open access resources;
- iv. ascertain the purpose of use of open access resources by the lecturers; and
- v. identify the factors militating against lecturers’ use of open access resources.

Research Questions

- i. What is the level of awareness of open access resources of lecturers of Basic Medical Sciences
- ii. How do Lecturers of Basic Medical Sciences Became Aware Open Access resources
- iii. To what extent do the lecturers in Basic Medical Sciences use open access resources?
- iii. What is the purpose of use of open access resources by the lecturers?
- iv. What are the factors that militate against the use of open access resources among lecturers in Basic Medical Sciences in Ambrose Alli University?

Literature Review

According to Nwabueze, Anyira, Ivwighrehweta and Onoriode (2010), "open access is a new model of scholarly communication through which the author grants to all users a free right of access to materials for responsible use, and this use is subject to proper attribution to author". "Open access resources as "online research outputs in the scholarly publication format, which are free of all restrictions on access such as subscription fees and free of many restrictions on use, such as copyrights and license restrictions" (Suber, 2013). Abubakar and Ali (2013), also see open access resources as "scholarly publications that are freely available on the internet, and free of copyright and other restrictions like licensing". They further elaborated the the contents in open access "can be read, downloaded, copied, distributed and printed by anyone and from anywhere without discrimination as to their use and this can be in various formats such as texts, data, audio, video, and multimedia etc.

With all the openness of open access resources, awareness and use have been a major issues in the acceptance of any technology innovation. To this end, "awareness is considered a central determinant of user attitude and behaviour towards technology" (Abubakar & Ali, 2013). Awareness could be seen as an important factor in determining actual use of a technology, and particularly open access resources. In a study by Oyedipe, Adekunmisi and Akinbode (2017), it was discover that the level of awareness of open access scholarly for publishing by lecturers is generally high. "According to the result of the analysis, 18 (33.3%) respondents were highly aware of open access journal as medium for publishing their research; also, 20(37.0%) were moderately aware, 14(25.9%) were fairly aware while only 2(3.7%) of the lecturers were not aware at all". The fallout from this is "that lecturers' level of awareness of open access scholarly publishing and content was very high". The findings from the studies of Okore (2014) and Yang and Li (2015) revealed that academics usually have high level of awareness of Open Access resources.

Ivwighrehweta and Onoriode (2012), study revealed low awareness among researchers "due to lack of awareness and poor attitude to Open Access" resources. Mohammed and Garba in a survey they conducted on awareness of Open Access scholarly publication among postgraduates in the Faculty of Science, Ahmadu Bello University, Zaria in 2013 found out "majority of the students were not aware of Open Access scholarly publications, even though, they used them for research". "Lack of awareness of open access publications is reported in extent literature among member of faculties in the Arts and Humanities" contrary to the reported findings in the study of faculty at the University of Science and Technology (AAU), United Arab Emirates by Kaba & Said (2015) "that faculty had high level of awareness and positive perception of Open Access". Okore (2014) in a study of Scientists in Agricultural research Institutes in Edo State, also revealed "high level of awareness of Open Access among the researchers".

With respect to source(s) of awareness of open access resources, Togia and Korobili (2014) in a study "on attitudes of faculty to open access" identified "self-knowledge, Internet searching, reading of articles, funding agencies, professional societies and use of literature as sources of awareness of open access by faculty". According to Jose (2014), "lecturer's awareness about Open Access as a means of conducting research, updating general knowledge, updating/seeking knowledge in respective disciplines and forming lectures notes for students was high but low as a means of communicating research findings. It was further found that lecturers' awareness about Open Access impacted on usage of the information content was high".

Oyedipe et al. (2017) found that majority of lecturers' preferred open access "mode of publishing their research articles and other works". In the same study, "lecturers' main purpose of using Open Access was for research conduct (40) (74.1%); general knowledge update (22) (40.7%); updating knowledge in my discipline (20) (37.0%) and forming lecture notes for students 18 (33.3%)". Suber (2013) posited that

“overall benefits from the open exchange of ideas within the scholarly community are for the good of all”. According to Ivwighreghweta and Onoriode (2012), “open access articles receive twice as many citations as articles beyond pay barriers, and the advantage is sustained over time”. In the conviction of Oyedipe et al. (2017), “lecturers perceived open access publishing and publication as being beneficial and so used them to satisfy their various needs for information”. Also reported is that “wider availability and accessibility to information (85.2%) took prominence, followed by prevent duplication of research efforts (74.4%), increase authors visibility on the web (70.6%), timely publication of research/project and timely completion of research/projects both (70.4%)”. Other benefits often scribe to open access include “being able to discourage pay per view mode of publishing (66.9%), timely access to information and data needed, allowing high journal impact as well as increases web ranking of universities all 66.7%”. In other studies, it was discovered that “increased visibility, citation advantage and high journal impacts are some of the benefits of publishing in Open Access” (Kenneway, 2011). Okoye and

Ejikeme (2010), however, stated “that with open access, articles can be accessed online free of charge”. In addition, they identified “inadequate skills to navigate the internet, unstable power supply, unavailability of internet facilities, permanence of open access movement due to unstable financial support, lack of knowledge of the existence of open access journals in the internet as constraints to the use of open access journals by researchers”.

Methodology

This study adopted the descriptive survey design to investigate the awareness and use of open access resources by lecturers in Basic Medical Sciences in Ambrose Alli University, Ekpoma. The population of this study includes seventy-one (71) lecturers in Faculty of Basic Medical Sciences, Ambrose Alli University, Ekpoma. Total enumeration sampling techniques was adopted to survey all the seventy-one (71) lecturers and technologists in the Faculty of Basic Medical Sciences out of which sixty-seven (67) questionnaire were duly filled and returned. The method of data analysis used includes frequency counts, simple percentages (%), arithmetic mean and standard deviation, tables and charts.

Findings and Discussion

Table 1: Demographic Distribution of the Respondents

AGE DISTRIBUTION	Frequency	Percentage (%)
31- 40	16	23.9
41- 50	37	55.2
Above 50	14	20.9
Marital Status		
Single	12	17.9
Married	55	82.1
Years of service		
1-5	9	13.4
6-10	17	25.4
11-15	32	47.8
16-20	9	13.4
Designation		
Academic Technologists	7	10.4
Graduate Assistant	2	2.9
Assistant Lecturer	7	10.4
Lecturer II	13	19.4
Lecturer I	14	20.9
Senior Lecturer	18	26.9
Professor	6	8.9

Source: field survey

Table 1 shows demographic data of the respondents; majority of the respondents fall

between age bracket 41-50 (55.2%), It is also evident from the study that majority of the

respondents represented by 82.1% were married, the number of years in service of the responding lecturers ranged from 1-5yrs to above 20 yrs, and of this, majority fall with 11-15yrs (47.8%). Finally the majority of the respondents belonged to senior lecturer position with 26.9% relative frequency.

Analyses of Research Questions

Research Question 1: What is the level of awareness of open access resources of lecturers of Basic Medical Sciences?

Level of Awareness of Open Access Resources by Lecturers

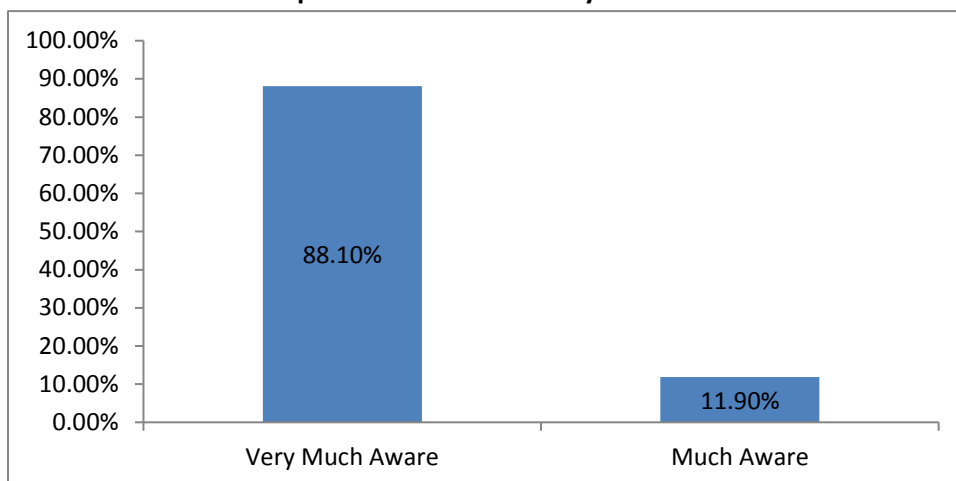


Figure 1: Level of awareness of OAR

		Freq.	(%)	Valid Percent	Cumulative Percent
Valid	very much aware	59	88.1	88.1	88.1
	much aware	8	11.9	11.9	100.0
	Total	67	100.0	100.0	

The Bar chart shows that 59 (88.1%) of the respondents are very much aware of OAR and 11.9% are much aware of the existence of open access resources.

Research question 2: How do Lecturers of Basic Medical Sciences Become Aware of Open Access Resources (OAR)?

How lecturers became aware of open access resources

		Freq.	(%)	Valid Percent	Cumulative Percent
Valid	Friends/Colleagues	14	20.9	20.9	20.9
	Website	13	19.4	19.4	40.3
	Conferences /seminars/ public Lectures	4	6.0	6.0	46.3
	Textbooks	8	11.9	11.9	58.2
	Internet	13	19.4	19.4	77.6
	Library personnel	15	22.4	22.4	100.0
	Total	67	100.0	100.0	

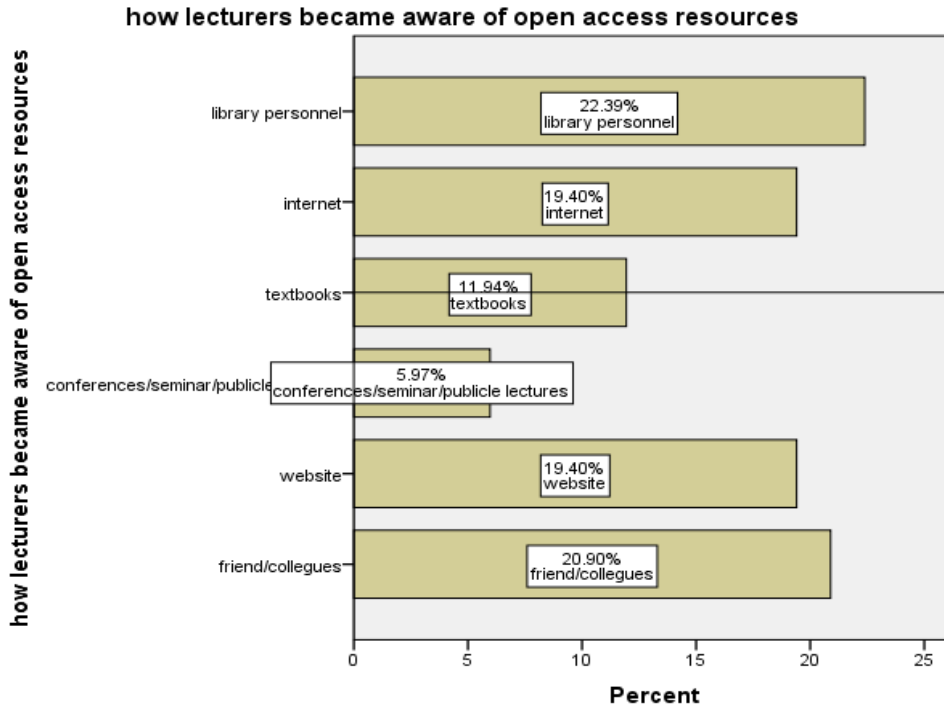


Figure 2: How Lecturers become aware of OAR

Figure 2 revealed that bulk of the respondents are aware of open access resources through library personnel (22.39%), friends and colleagues (20.90%), and Website and Internet (19.40%). The figure also shows the proportion of the respondents that become aware of open access resources through textbooks with 11.94%, while

only 5.9% of the total respondents become aware of the resources under review through conferences/seminars/public lectures.

Research question 3: To what extent do the lecturers in Basic Medical Sciences use open access resources?

Table 2: Extent of Use of Open Access Resources

S/N	Open Access Resources	Very High Extent	High Extent	Low Extent	Very low Extent	\bar{x}	SD	Decision
1	E-Journals	39 (58.2%)	28 (41.8%)	-	-	3.6	0.50	VHE
2	E-Books	26 (38.8)	26 (38.8)	-	15 (22.4%)	3.2	0.77	VHE
3.	Audio-video lectures	-	11 (16.4%)	26 (38.8%)	30 (44.8%)	1.8	0.71	VLE
4.	Institutional Repositories	-	32 (47.8%)	12 (17.9%)	23 (34.3%)	2.3	0.76	LE
5.	E-Directories	8 (11.9%)	6 (9.0%)	15 (22.4%)	38 (56.7%)	2.1	0.89	LE
6.	Subject gateways	29 (43.3%)	28 (41.8%)	-	10 (14.9%)	3.3	0.71	VHE
7.	E-Databases	30 (44.8%)	19 (28.4%)	11 (16.4%)	7 (10.4%)	3.0	1.11	VHE
8.	Open access Courseware	5(7.5%)	19 (28.4%)	17 (25.4%)	26 (38.8%)	2.2	0.90	LE
9.	Websites	-	27(40.3%)	-	40 (59.7%)	2.4	0.49	LE
10.	E-Newspapers	26 (38.8%)	41 (61.2%)	-	-	3.4	0.49	VHE
11.	E-Thesis/Dissertations	-	27 (40.3%)	-	40 (59.7%)	2.4	0.49	LE
12.	Conference proceedings	-	57 (85.1%)	-	10 (14.9%)	2.9	0.36	HE
13.	E-Patent	13 (19.4%)	32 (47.8%)	-	22 (32.8%)	2.9	0.72	HE

Key: \bar{x} - mean, SD - standard deviation, VHE — Very High Extent, HE – High Extent, LE — Low Extent

Table 2 shows the mean rating of the extent of use of open access resources by lecturers of Basic Medical Sciences in Ambrose Alli

University, Ekpoma. It is therefore clear from the table that a significant proportions of the respondents use E-journals (3.6), E-Books (3.2),

E-newspapers (3.4), Subject gateways (3.3) and E-databases (3.0) to a very high extent, while use of audio-video lectures received the lowest mean rating of 1.8. The implication of this is that audio-video lectures as open access resource is used to a low extent by the lecturers.

Research Question 4: What is the purpose of Use of Open Access Resources by Lecturers in Basic Medical Sciences?

Table 3: Purpose of Use of Open Access Resources (multiple choice options)

S/N	Purpose	Frequency	Percentages (%)
1	Searching for relevant literature for research	67	100
2	Downloading of articles	67	100
3	Searching of topics/ideas for thesis, conference papers, articles etc	59	88.1
4	Bibliographic citation and referencing	46	68.7
5	Searching for Publishing platform for articles	62	92.5
6	Teaching purpose	67	100
7	To update knowledge	67	100
8	Current awareness	67	100

Table 3 shows the purpose of use of open access resources by lecturers in Basic Medical Sciences in Ambrose Alli University, Ekpoma. It evident from the table that 100% of the responding faculty use open access resources for the purpose of searching for relevant literature for research; for downloading articles; Teaching; to update knowledge and for current awareness purposes; 62 (92.5%) use open access resources for searching for publishing platform for articles,

59(88.1%) responding faculty indicated in the affirmative that they use open access resources for the purpose of searching for research topics/ideas for thesis, conference paper, articles, etc, while 46(68.7%) indicated that they use open access resources for bibliographic citation and referencing.

Research Question 5: What are the Factors Militating Against the Use of Open Access Resources?

Table 4: Factors militating against the Use of Open Access Resources

Factors militating	N	Yes Freq (%)	No Freq (%)
1 Unavailability of Internet	67	16 (23.9%)	51 (76.1%)
2 Lack of adequate knowledge on the Use of open access resources	67	51 (76.1%)	16 (23.9%)
3 Accessibility problems	67	67 (100%)	-
4 Delay in downloading of articles	67	23 (34.3%)	44 (65.7%)
5 Incessant power supply	67	23 (34.3%)	44 (65.7%)
6 Improper editorial	67	57 (85.1%)	10 (14.9%)
7 Authenticity of information	67	66 (98.5%)	01 (1.5%)
8 Lack of quality control	67	59(88.1%)	08 (11.9%)
9 Proliferation of open access resources	67	67 (100%)	-
10 Technicality of use of some resources	67	08 (11.9%)	59 (88.1%)

Table 4 revealed the factors that militate against the use of open access resources by faculty members. Foremost among the factors are proliferation of open access resources and

accessibility problems as attested to by 100% of the respondents.

Discussion of Findings

Demographic Distribution of the Respondents

The findings revealed that majority of the lecturers fall between 41-50years age bracket with relative frequency of (55.2%), Ages 31-40 (23.9%), while >50years are 14(20.9%). Findings also revealed that the majority of the respondents were married 55(82.1%) and single 12(17.9%); the number of years in service of the responding lecturers ranging from 1-5yrs to above 20 yrs and majority falls with 11-15yrs (47.8%) and on the designation of the respondents, 7 were Academic technologists, 2 graduate assistant, 13 Assistant Lecturers, 13 Lecturer 11, 14 Lecturer 1, 18 Senior Lecturer and Professors were 6. This shows that bulk of the responding faculty were in Senior Lecturer position 18(26.9%).

Level of Awareness of Open Access Resources by Lecturers

The Bar chart shows that 59 (88.1%) of the respondents are very much aware and 11.9% are aware of the existence of open access resources. This implies that all respondents are aware of open access resources. This findings are in line with the findings of Ivwighreghweta (2016) who found that academics were very much aware of Open Access resources, Yang and Li (2015) that academics had high level of awareness of Open Access and also the study by Oyedipe, Adekunmisi and Akinbode (2017) that indicated that "lecturers' level of awareness of open access scholarly publishing and content was very high".

How do Lecturers of Basic Medical Sciences Became Aware Open Access resources?

The chart shows that majority of the respondents become aware of open access resources through library personnel (22.39%), friends and colleagues (20.90%), Website and Internet (19.40%); while 11.94% of the respondents become aware of OAR through textbooks and 5.97% become aware through conferences/seminars/public lectures. The findings are at variance with the findings of Oyedipe et al. (2017) that reported that lecturers' became aware of open access resources through self-exploration of the internet and 7.4% of the respondents through university library.

Extent of use of open access resources by Lecturers in Basic Medical Sciences

Table 2 shows the mean rating of the extent of use of open access resources by lecturers of Basic Medical Sciences in Ambrose Alli University, Ekpoma. The table shows that majority of the respondents use E-journals (\bar{X} =3.6), E-Books (\bar{X} =3.2), E-newspapers (\bar{X} =3.4), Subject gateways (\bar{X} =3.3) and E-databases (\bar{X} =3.0) to a very high extent while the use of audio-video lectures received the lowest mean rating of 1.8. The implication of this is that audio-video lectures as open access resource is used to a low extent by lecturers.

Purpose of Use of Open Access Resources

Table 3 shows the purpose of use of open access resources by lecturers in Basic Medical Sciences in Ambrose Alli University, Ekpoma. The table reveals that 100% of the respondents use open access resources for the purpose of searching for relevant literature for research; for downloading articles; Teaching; to update knowledge and for current awareness purposes. As high as 62 (92.5%) respondents use open access to search for publishing platform for articles, 59(88.1%) respondents use open access resources for the purpose of searching for research topics/ideas for thesis, conference papers, articles, etc, while 46(68.7%) indicated that they use open access resources for bibliographic citation and referencing. It can therefore be concluded that majority of the respondents use open access resources majorly for the purposes of searching for relevant literature for research, for downloading articles, teaching, to update knowledge and for current awareness purposes. These findings are in line with the study by Mohammed and Garba (2013) that revealed that "majority of the respondents use open access for searching for relevant literature, downloading of articles, searching for topics/ideas for thesis, conference papers, articles, as well as for bibliographic citation and referencing".

Factors militating against the Use of Open Access resources

Revealed in Table 4 are factors that militate against the use of open access resources by

faculty members. Leading among the factors are proliferation of open access resources and accessibility problems as affirmed by 100% of the responding faculty; this is closely followed by authenticity of information (98.5%), lack of quality control (88.1%), and improper editorial (85.1%). Besides, 23.9% and 11.9% of the respondents respectively believed that unavailability of internet and technicality of some resources are not critical factors that could militate against lecturers' use of open access resources.

Conclusion

The study provides an insight into the awareness and use of open access resources among academics (lecturers) in Basic medical sciences. The study population is essentially important because of their profession as medical teachers and their constant need for current information. Open access resources have great benefits for academic community and their effective and efficient use need to be promoted among academic community. The level of awareness among the respondents under study shows that the resources are of tremendous use in the basic medical sciences for different purposes ranging from teaching to updating of knowledge. Major challenges reported have been those of proliferation of resources, authentication problems, and lack of quality control in the information given out.

Recommendations

Arising from the findings of the study, the following recommendations were made:

- I. There is need to create more awareness about open access resources among the academics and,
- II. Faculty members should be encouraged to attend seminars/workshops on open access resources in order to know more about how to sift through large quantity of information resources available online under open access platform for maximum benefit.
- III. Librarians also need to be proactive in their duty of promoting information literacy among their community of users and training of academics (lecturers) on

how to identify genuine information resources in open access platform and the various formats they appeared.

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