Effect of Liservices on Medical Students Skills on Evidence-Based Learning

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Abstract- This empirical survey examines the effect of Liservices on medical students’ skill in evidence-based education. The objectives of the study were to evaluate the activities of medical students when using library resources, to determine the purpose for using the library services, to find out the sources most frequently used for current information, and to find out the category of medical students (basic or clinical) who use the library most. Seven hundred and eleven (711) medical students. This sample comprised of 394 males and 317 females and were in Basic (Parts 2-4) and Clinicals (Parts 5-6) at the time of conducting this research. A systematic random sampling technique was used to select the respondents from various Medical Schools in Nigeria. The use of questionnaire technique was adopted to elicit information from the students who came to use their institutional libraries. The results show that medical students most frequently visited the library for the purpose of accessing e-library and OPAC. Majority of the respondents relied on library e-resources while some still depended on textbooks. Those in the Basic Medical Class rely heavily on e-resources for current information than those in the Clinical class. It is recommended that Advanced library instruction programme should be incorporated into the curriculum of the Clinical Students where the use of e-resources and information technology will be taught.

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Strictly as per the compliance and regulations of:
Abstract- This empirical survey examines the effect of LIServices on medical students’ skill in evidence-based education. The objectives of the study were to evaluate the activities of medical students when using library resources, to determine the purpose for using the library services, to find out the sources most frequently used for current information, and to find out the category of medical students (basic or clinical) who use the library most. Seven hundred and eleven (711) medical students. This sample comprised of 394 males and 317 females and were in Basic (Parts 2-4) and Clinicals (Parts 5-6) at the time of conducting this research. A systematic random sampling technique was used to select the respondents from various Medical Schools in Nigeria. The use of questionnaire technique was adopted to elicit information from the students who came to use their institutional libraries. The results show that medical students most frequently visited the library for the purpose of accessing e-library and OPAC. Majority of the respondents relied on library e-resources while some still depended on textbooks. Those in the Basic Medical Class rely heavily on e-resources for current information than those in the Clinical class. It is recommended that Advanced library instruction programme should be incorporated into the curriculum of the Clinical Students where the use of e-resources and information technology will be taught.

1. Introduction

Biomedical science is one of the fields where the expansion of information is enormous and which is critically dependent on up-to-date information. This factor has influenced the implementation of evidence-based learning (EBL) approach in the medical education. Information explosion has resulted in a change in the delivery of medical education and the shift from traditional educative approaches to a non-didactic problem based philosophy a strategy by which both students and teachers can cope with and hopefully manage the ever-expanding field of information (Smith, 2002; Epstein 2004). In the lecture-based convention teaching, students are passive recipients of information whereas in an evidence-based learning curriculum they are active participants in the learning process with emphasis on the use of the library and its resources. They are expected to use different learning resources to collect relevant information and literature for their study.

With such emphasis on information gathering and evaluation, the use of the library becomes a dynamic powerful learning resource for the students. Thus, for students to achieve their self-directed learning targets in the evidence-based learning curriculum they would be expected to make good use of the library and its e-resources Library plays a vital role in any knowledge economy and it plays a central importance in education and research as well as in the delivery of clinical care and the management of clinical services. Library services also focus on provide crucial and significant support early in the research paradigm.

The digital information world, the growth of knowledge and the increasing specialization of every health and health services field, the potential gap between new science and service world, and the ever changing role facing library professionals are all ingredients in a recipe for either confusion and with opportunity, or a new and better way of benefitting the students. We are building on success, and it is time to accelerate change and secure further successes. It is easy for people to take librarians and library services for granted, to assume that they will always be there like they always have been there, but of course the Internet changes everything in the knowledge business-changes apart from the need to have well qualified and motivated professionals who understand the needs of users.

Walzer, Stott & Sullivan (2000: 262) in their earlier study highlighted some roles of the medical library as:

- Provision of current quick and cost effective information to users.
- Provision of alternatives to formal learning in form of material support for continuing medical education.
- Locating and assisting in the development of relevant information or materials.

There are two major challenges facing the librarians; rapid growth in information technology and the growing population of students, many of whom lack access to relevant information and appropriate technological skills technology (Fairlie, 2005). These challenges are particularly significant for librarians as… information providers and have led to the emergence of the key roles of the library leadership and… and vision, strategy, partnership development and problem solving.

The challenge for librarians is to demonstrate that the services they provide actively support clinical care (teaching, learning and research). They should organize a programme to systematize and unify initiatives, such as current awareness services that will lead to achieve consistency, efficiency and economic...
scale. Library must be made a place for reflection, quiet contemplation and working undisturbed, a point of access to technology (Internet access, virtual space) and a place for training and the library as learning enabler.

A good library services need to have a number of these characteristics.

- Quality assured
- Responsive
- Open to all
- Efficient
- Flexible
- Committed to education, training and life long learning
- Committed to evidence-based care.

Blummer (2007) reiterate the use of evidence-based learning in higher education as affording librarians new avenues for promoting the development of information literacy skills among students. It supports providing students with skills to locate relevant resources for developing solutions to these exercises. Omekwu (2006) observes that information technology and library services provide platform to access, interpret and apply impact positively on productivity of medical professionals. Watts and Ibegbulam (2006) highlight the importance of e-information sources as enabling users to gain access to and use the specific information that students need.

With such emphasis on library and information technology as a dynamic powerful learning resource for the students, it is imperative therefore, for the university medical libraries, for easy access to information students were provided Internet facilities and e-libraries which are been effectively explored by staff and students of their faculties.

II. Purpose of Study

The objectives of the study are to:

1. Determine usability of the library services by Medical Students
2. Find out the influence of library use on evidence-based learning in medical training.
3. To determine degree of satisfaction of medical students with respect to library services.

III. Historical Background

Medical education started in Nigeria with the establishment of the University College, Ibadan in 1948 (Now University of Ibadan that consequently established University College Hospital (UCH), Ibadan which started the training of Medical doctors. In 1962 another four universities were established by the Government which did not start her medical schools until 1970. Today, these medical schools have many faculties consisting of several departments. The curriculum is divided into three phases: a pre-medical (100 level/year), a three year (200-400 levels). Basic medical sciences and a two year clinical science (500-600 level/year. In the three learning phases courses are mostly taught in the conventional way.

IV. Methodology

The focus of the study is effect of library services on medical students’ skills in evidence-based learning. It is essential to evaluate the impact of the library services in line with medical school curriculum. The researcher selected medical students from four University Medical Schools in Nigeria. The universities were University of Ibadan (U.I), Ibadan; Ogun State University, Ago-Iwoye; University of Lagos, Lagos and Obafemi Awolowo University, Ile-Ife. These Universities are located in the South-West of the country. For the purpose of this study, only medical students in levels 200-600 were selected. The respondents were grouped into two Basics (200-400 levels) and Clinicals (500-600 levels).

A total of seven hundred and eleven (711) medical students comprising of 394 males and 317 females were sampled. Questionnaires were distributed to those who came to make use of their Institutional library facilities. A systematic random sampling technique was used to distribute the questionnaire at the main entrance of the library. The respondents were selected at an alternating interval of five students coming to the library.

V. Result and Finding

Out of seven hundred and eleven (711) questionnaires distributed to students, 485 (68.2%) were returned and analysed. This comprised of 130 (26.8%) second year, 114 (23.5%) third year, 100 (20.6%) fourth year, 78 (16.1%) in fifth year and 63 (13.0%) six year. Two hundred and fifty-eight (53.2%) were males while two hundred and twenty-seven (46.8%) were females. Six hundred and thirty-five (89.3%) held no previous undergraduate degree, 51 (7.2%) held Bachelor of Science Degree and 25 (3.5%) held the Master of Science Degree. Nearly 78 percent of the students had undergone Library Instruction Programme (LIB 001), while others had received some form of library orientation.
### Table 1: Students' Activities in the Library

<table>
<thead>
<tr>
<th>Activity</th>
<th>Daily</th>
<th>2-4 Times/Week</th>
<th>Once/Week</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic library</td>
<td>49</td>
<td>87</td>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>Online public access catalogue (OPAC)</td>
<td>56</td>
<td>75</td>
<td>33</td>
<td>10</td>
</tr>
<tr>
<td>Reference books</td>
<td>8</td>
<td>45</td>
<td>61</td>
<td>4</td>
</tr>
<tr>
<td>Past question file</td>
<td>7</td>
<td>36</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>Studying course work</td>
<td>6</td>
<td>32</td>
<td>36</td>
<td>14</td>
</tr>
<tr>
<td>Seeking information for course work</td>
<td>3</td>
<td>24</td>
<td>60</td>
<td>7</td>
</tr>
<tr>
<td>Seeking information for research</td>
<td>6</td>
<td>9</td>
<td>32</td>
<td>53</td>
</tr>
</tbody>
</table>

Percentage may not equal 100% due to rounding.

### VI. Library Related Activities

Students were requested to tick on a checklist the frequency with which they engaged in several library activities. Table 1 shows that the most frequent use of Library (defined as daily and 2-4 times per week) was for electronic-library and Online Public Access Catalogue (OPAC). Seeking information for reference books, past question file and studying course work were frequently engaged in them. The result indicated good patronage of the library and its resources.

### VII. Student Activities in the Library

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Occasionally</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature search</td>
<td>30(6.2%)</td>
<td>276(56.9%)</td>
<td>101(20.8%)</td>
<td>21(4.3%)</td>
<td>5(1.0%)</td>
</tr>
<tr>
<td>Information on patient</td>
<td>40(8.2%)</td>
<td>167(34.4%)</td>
<td>156(32.2%)</td>
<td>75(15.5%)</td>
<td>7(1.4%)</td>
</tr>
<tr>
<td>E-mail</td>
<td>96(19.8%)</td>
<td>231(47.6%)</td>
<td>81(16.7%)</td>
<td>11(2.3%)</td>
<td>6(1.2%)</td>
</tr>
<tr>
<td>Seeking information for course work</td>
<td>67(13.8%)</td>
<td>285(58.1%)</td>
<td>125(25.8%)</td>
<td>8(1.6%)</td>
<td>1(0.2%)</td>
</tr>
<tr>
<td>Chat</td>
<td>52(10.7%)</td>
<td>183(37.7%)</td>
<td>138(28.5%)</td>
<td>13(2.7%)</td>
<td>4(0.8%)</td>
</tr>
</tbody>
</table>

Most students use e-resources weekly for the purpose of seeking information for course work. More than half, however use e-resources for literature search. While almost 50 percent use e-mail on weekly basis. It is a good thing that students realize the importance of library services provided in the library through electronic resources. This result conforms with Khudair (2005) that medical students are enthusiastic about using the Internet for it is easy to use, fast communication features and provide current and relevant information in a timely manner from a multiple sources.

In order to locate current information, 56.9 percent of the respondents indicate using electronic resources. Students in year 2 used e-resources extensively while students in higher classes used it less. The reason deduced for less usage by the clinical students is because of their clinical posting during which they spend most of their time in clinical areas (wards). Nearly 80 percent of the respondents agree that evidence-based education will not be effective without ability to access and retrieve information from the internet and other e-resources. The wide range of information required for medical education does not lend itself to a narrow information base. Marchionen (1995) reveals that information seeking is a mental human process closely related to learning and problem solving.
ICT Facilities Recommended by the Students

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Digital library facility</td>
<td>368</td>
<td>75.9</td>
</tr>
<tr>
<td>2. Provision of e-resources</td>
<td>307</td>
<td>63.3</td>
</tr>
<tr>
<td>3. Library website of your university</td>
<td>289</td>
<td>59.6</td>
</tr>
<tr>
<td>4. Automation of library</td>
<td>299</td>
<td>61.6</td>
</tr>
<tr>
<td>5. Networking with other medical libraries</td>
<td>231</td>
<td>47.6</td>
</tr>
<tr>
<td>6. Local area network</td>
<td>197</td>
<td>40.6</td>
</tr>
</tbody>
</table>

The respondents were asked to make their recommendation about ICT facilities in their libraries. Three quarters (75%) of the students recommended digital library facility. More than 60 percent recommended provision of more e-resources and almost equal number recommended library website for remote access to library resources and services. Networking with other medical libraries was deemed very important as no one library can have all the books, journals and other materials that users need.

VIII. Degree of Satisfaction of Library Services

The respondents were requested to rate their degree of satisfaction with library services and facilities provided. It is not surprising that 73.6 percent of the students indicated their satisfaction while 12.4 percent were partially satisfied. A small size (14.0%) percent were not satisfied and the remaining 1.0 percent cannot decide whether they were satisfied or not. The finding is as a result of frantic effort each university libraries are making to be IT complaint because of this a lot of money are been spent on automation of the library operation in order to serve library users better.

![Figure 2: Degree of Satisfaction of the Library Services and Facilities](image)

IX. Major Findings

After an analysis and interpretation of data, the following findings were observed:

1. More than 75% of the respondents came to library to use e-library and Online Public Access Catalogue (OPAC) most frequently.
2. Majority (58.1%) use electronic resources of the library for the purpose of seeking information for course work and 56.9 percent for literature search.
3. Respondents in parts 2 to part 4 use e-resources more for current information than those in senior classes (part 5 & 6).
4. 75.9 percent of respondents recommended provision of more digital library facilities.
5. Electronic library and e-resources were considered very important by respondents for expanding the frontiers of knowledge in medical education.
6. 73.6 percent of respondent expressed their satisfaction with services available in the library even
though they are advocating for more electronic formats.

X. Conclusion

From the analysis and findings of this study, it can be inferred that medical students are aware that library is a useful tool that provides students with a wide range of services that can address problems in evidence-based education. Some of the respondents note:

“Using library and its resources has helped me to submit my class assignments to time because of easy and fast access to many literature”.

“Using library has equipped my skills in evidence-based learning because it has exposed me to analytical thinking consequently improved my academic performance”.

The study reveals that medical students are making effective use of the library and the indelible marks its making in the education of medical students. Electronic resources can be used in developing skills in evidence-based learning, but the lack of skills in IT and e-resources is still a bare. It is important to mention that some of the problems faced by medical libraries in meeting the needs of the library users are erratic electricity supply, low bandwidth and low level of computer competency of the students. Another finding from the study is lack of cooperation among the medical libraries, interlibrary loan is unpopular. It is the view of this paper that these identified problems must be urgently addressed so as to help students maximally access vast available medical information in the electronic formats.

References Références Referencias

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