Health Information Management Skills and ICT Staff Training Needs in a Nigerian Tertiary Medical Library

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Introduction

Information technology has permanently altered traditional librarianship and the duties of librarians and support staff. Before the advent of information and communication technology (ICT), academic libraries were the sole custodians of information, which was mostly in print (Annunobi 2008). Information technologies have also had an impact on healthcare workers. The Internet brings access and communication on an unprecedented scale (Masys 2005). Sources of information are increasing exponentially, reflected in the steady growth in the use of information technology in teaching and learning. The nature of medical knowledge and technology requires everyone in the health care sector have computer skills (Trivedi 2008).

The paradigm shift from traditional to multidisciplinary librarianship through ICT has increased the quantity of information passing through the library and the health librarian's role must keep up with these changes. Health care is an information-intensive sector and ICT is important in the health care delivery. ICT offers opportunities for developing countries like Nigeria to narrow the development gap (Ajuwon and Rhine 2008). Librarians and library support staff require the skills to serve the health sector optimally (Walton & Edwards 1999). Librarians often handle queries from patrons, while support staff may find themselves providing technical assistance. All staff providing direct or indirect assistance to library users need increased technical skills (Ashcroft and Watts 2005).

Walton and Edwards (1999) found a significant information management skills gap amongst information professionals in Nigeria. The research suggested collaboration and strategic management of resources as way of alleviating problems. Staff training or retraining becomes imperative, because without training, the vast amount of electronic health information resources will be underused. Studies have shown that the provision of electronic information in the health sector does not match that of the academic sector (Goulding et al. 2000).

The E. Latunde Odeku Medical Library (ELOML), University of Ibadan, Nigeria, serves the student and staff community of the College of Medicine, University of Ibadan, as well as the University College Hospital (UCH), Nigeria's pioneer teaching hospital. They are both situated on the same campus. Staff expressed the desire for exposure to ICT through their numerous unsuccessful applications for training outside the country. The ELOML collaborated with Lenny Rhine, the former Director of Biomedical Library, University of Florida, USA, and presently with Librarians without Borders to organize a week-long intensive workshop, called Health Librarians Information Management Skills, in July 2007. Data for this study was gathered at that workshop.
The objective of the study is to assess the library staff ICT or information skills knowledge, to ascertain how they were trained and areas that would need additional training or retraining. This study investigates the use of ICT skills by librarians and support staff in ELOML. The investigation also helps build training modules that would be most useful.

Methodology

Prior to the workshop, 24 staff were surveyed using a questionnaire with eleven questions. The survey assessed knowledge before the workshop. The training was informed by Williamson and Bannister’s (2002) belief, “effective training must be concise and interactive, interspersed with exercises and hands on experimentation.” The workshop was held in the College of Medicine, University of Ibadan’s Education Trust Fund (ETF) computer laboratory. The laboratory has sixty computers and, the College of Medicine graciously provided electricity from their stand-by generator whenever there was a power outage. Each participant had a desktop computer to work with, and hands-on sessions were very successful. Workshop modules were designed to suit the needs of the participants extracted from the questionnaires.

Result Analysis

Years of service by staff ranged from two to ten. Of the 21 workshop attendees, eight had first and second degrees in different fields, three of them librarians and five support staff.

Participants were asked to honestly assess their computer skills. None claimed to be excellent in using computers, nine (42 percent) rated their skills as good; three (14.2 percent) rated them satisfactory; six (28.5 percent) fair; none rated his/her skills as poor, while two (9.5 percent) were not computer literate at all.

Asked when they had last attended computer training provided by the library, four (19 percent) said less than one year ago, four (19 percent) within the last two years, four (19 percent) within the last four years, one (4.7 percent) more than six years, one (4.7 percent), and three (14.2 percent) had never attended any training since joining the library system.

It was interesting to note that the same set of eight (38 percent) staff with university degrees or post-graduate degrees were those who could do literature searches on MEDLINE/PUBMED, MEDLINE (Ovid), HINARI, and HELIN, an ELOML in-house database on health literature in Nigeria and by Nigerians.

Sixteen (76 percent) of the staff could search using Alice for Windows, library software the ELOML was using as at the time of the study, and seven (33 percent) claimed they could not and were not doing any literature search at all in spite of having been library staff for more than two years.

Question 8 asked participants to indicate their areas of interest, and where they would desire to have more exposure or in-depth training. All participating staff had interest workshop modules on HINARI, AIM, EBM, Health Information Repackaging, and Electronic Literacy, while 13 had training interest on MEDLINE /PUBMED; 18 Library Marketing; 1 Web design; 1 Network and System Administration.
Table 2: Specific areas of interest for training by the ELOLM staff

<table>
<thead>
<tr>
<th>Listed Topics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDLINE/PUBMED</td>
<td>13</td>
<td>61</td>
</tr>
<tr>
<td>HINARI</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>AIM</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>Evidence Based Medicine (EBM)</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>Health Information Repackaging</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>Marketing the Library</td>
<td>18</td>
<td>85</td>
</tr>
<tr>
<td>Electronic Literacy</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>*Unlisted areas of Interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web Design</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Network and System Administration</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

N = Number % = Percentages

Staff were asked to indicate interest in application software. All participants chose all the listed software, including Microsoft Power Point, Microsoft Excel, Microsoft Publisher, Microsoft Word and Adobe Acrobat.

Table 3: How often do staff expect training

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarterly</td>
<td>10</td>
<td>47.6%</td>
</tr>
<tr>
<td>Bi-annual</td>
<td>9</td>
<td>42.8%</td>
</tr>
<tr>
<td>Annual</td>
<td>2</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

Discussion

The changes in LIS organizations in the last two decades have led to anxiety about the ability of staff to keep their skills current and flourish in this environment (Lwoga, et al. 2006). Staff have sought ICT training in the face of growing user needs. ICT provides ways of delivering and accessing of information that can improve productivity and the delivery of education, health, and other social services (Brewerton 2000).

This study sought to determine the skill levels of health sciences library staff, and need for training and re-training. Of 21 staff, only eight claimed to be computer literate, and this same set of staff did literature searches for library patrons. Lack of searching skills is a hindrance to use of available electronic resources. All staff, regardless of the level of skill or experience, expressed the need to be trained and re-trained in information searching skills in order to be relevant in the library information services of today.

Areas of interest revealed a trend that might not be peculiar to the ELOML. Staff with undergraduate and master’s degrees were more conversant with ICT in health information, while support staff were less equipped to work effectively in a health library.

Library staff showed a lack of exposure to training. Only four (19 percent) had had refresher training in the past year, and seven (38 percent) in the last two years. Another four (19 percent) in the last four years, one (4 percent) in the last six years and 3 (14 percent) had never had any training since being
hired. This could be due underfunding of libraries in developing countries, “which has become perennial and may remain so if the economy does not improve” (Ogunsola 2004)

Some studies reflect that, “today’s information professionals need to be out-going, self motivated, able to learn, and receptive to new ideas” (Lwoga 2006), yet the onus for staff training and retraining should be on institutions the libraries serve. This could be achieved through collaboration with tertiary institutions in developed countries and putting policies in place to train staff.

The desire for knowledge and training was apparent in the study group, where nearly half wanted quarterly refresher training and a nearly equal number would like bi-annual training, with those remaining wanting at least yearly ICT training. ICT expertise is achievable through long-term training in informal or formal courses and programmes (Lwoga 2006).

Conclusion

The health information provider who refuses to be trained or retrained to be computer literate is a justifiably endangered species in this environment, where new ICT methods are constantly developing. Information skills training can have a positive impact on any category of library staff. Appropriate formal or informal training can prepare library staff to confidently assist readers with a literature search, and with packaging or repackaging information for users.

Parent institutions can help by formulating ICT policies to encourage collaboration with institutions, agents, and governments from developed countries to get funds and technical training and advice. Developing ICT infrastructure, e-learning environment, and ICT short courses would help create the desired awareness, education for librarianship should diversified with emphasis on ensuring that the curricula and teaching in library schools keep pace with the new digital environment (Keeling and Lambert 2000).

References


**ABBREVIATIONS**

ICT Information and Communication Technology

LIS Library Information Science

ELOML E. Latunde Odeku Medical Library

UCH University College Hospital

USA United States of America

HINARI Health Internetwork in Academic and Research?

HELIN Health Literature in Nigeria

AIM African Index Medicus

EBM Evidence Based Medicine

ETF Education Trust Fund