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LIBRARY USE AND INFORMATION SEEKING BEHAVIOURS OF HEALTH SCIENCE STUDENTS OF COLLEGE OF MEDICINE OF THE UNIVERSITY OF LAGOS

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ABSTRACT

Medical students of College of Medicine, University of Lagos were surveyed to determine their general use of the Medical Library and how they sought information in the print and emerging electronic environment. Overall response rate of 76.5% was recorded.

Results revealed that the students used the Library most frequently for seeking information related to studying coursework (90%). They preferred textbooks (61%) and handout (52%) as sources of current information. However, when these students went beyond textbooks and handouts to seek current information, a major shift was from print indexes and abstracts towards the use of computerised indexes and other electronic resources. About 31% of them reported using index database on computer like Medline while 39% reported using the Internet for locating current information. Overall use of the electronic materials was highest among Postgraduate students. Many of the students (91%) surveyed indicated that continuing

education/workshop and computerised information including E-mail(81%)and World Wide Web(75%) would have some degree of importance to them for future education needs. The electronic environment has provided new opportunities for information professionals to prepare future physicians, some of who will be practicing in the rural areas, to access the wealth of information services available on the Internet.

INTRODUCTION

Library use and information seeking behaviour of medical students of developed nations have been widely studied and reported in Library and medical literatures. These include those of Wildemuth, etal (1994) Haynes,[1992], Ikeda, et al;[1993] Rankin, (1992) and Western, (1986). Similarly, researches have also been conducted by Premsmit,[1990] on Asian Countries along the same line. However, in Africa there are few studies in this area. This include Osiobe (1987) and Popoola (1998&1998) though, several studies exists in the Library use by students of tertiary institutions as conducted by Made, (1992), Olanlokun and Momoh (1994), and Edem,U.S and Lawal,(1994).

This study was conducted to discover and understand the Library use and Information seeking habits of medical students in the College of Medicine, University of Lagos. This paper is centered on the students' use of traditional library services as well as the computerised resources. Coincidentally, in the past two decades the computer revolution has introduced new developments and has significantly impacted on the availability of information for health professionals.

Several studies by Akhigbe 1987 Robert et al ,(1990),Boneski, et al,(1999)and Rolland,,et al,(1999) have described the use of new computer-based technologies in medical practices. Some medical practitioners as reported by Mandham (1988) and Hollander (1999) place the number of medical practices on-line to date as being only a small percentage of the medical profession. They further stated that on-line communication have great potentials for helping the medical profession overcome the decentralised hospital model and the geographic and time barriers that has militated against standardised medical practices world over in the past.

The information age is definitely here and more doctors as reported by Bates (1999) are finding out that a computer system is as necessary to practice, as a stethoscope. The implication of this is that computer skill for accessing information could be conjectured to be of utmost importance to today's medical students. The medical libraries including the medical library, College of Medicine, University of Lagos (1999) have refocused their mission

to serving students, faculty and alumni in addition to providing traditional printed materials. What did medical students know about accessing information in the electronic and traditional printed environment? As was the case in the U.S.A, when a similar study was conducted by Pelzer, and others (1999), little documents exists in the literatures today concerning medical students present day information seeking behaviour. Also, little information exist on the students use of computerised sources, and the evaluation of their use of more traditional as well as computerised library services at the medical library CMUL. The extent to which students anticipated use of these library resources following graduation from medical school was also of interest as an indication of their commitment to these resources in the future.

Survey Methodology

The survey population comprised of 400 groups of students including all five classes of students enrolled in the professional curriculum at CMUL 1998/1999 session. These students who had received library instruction prior to medical school, were asked to identify themselves. Health science students with advanced degrees (Masters of Science and doctor of Philosophy) were also asked to identify themselves.

The instrument was composed of forty categorical questions which included inquiries about students general use of the medical library CMUL, facilities, approaches to seeking current information, use of indexes/abstracts, and electronics resources and anticipated resources for acquiring information when in practice. Most of the questions contained in a similar study by Pelzer, Wiese, and Leysen ,(1990) in Iowa State University, United Stated of America were adopted to suit the peculiar circumstance of medical library CMUL. Statistical analysis included the calculation of frequencies as percentages. The statistical test of least significant difference was used at 0.05 level significance to indicate statistical differences between groups of students.

Data Analysis and Discussion

Four hundred questionnaires were randomly administered to 1,511 enrolled students for the 1998/99 sessions. Three hundred and six questionnaires were returned duly completed for an overall rate of 76.5%. The respondents comprised of 170males and136 females. Class representation of the total return, was 30% for 200 level students (n=91), 26% for three hundred level students (n=80), 5% for four hundred level students (n=15), and 4% for higher degree students (n=12). The rationale for identifying the advanced degree students was to establish their familiarity or lack of it with the library. Seventy five percent had no previous undergraduate degrees, 9% held a Bachelour of Science or arts degrees and non-had a doctor of philosophy degree. Twenty seven percent of those questioned had received library instruction in primary and secondary school. Twenty two percent had only the initial library orientation conducted for freshmen, 21% had done library studies under General African Studies (GAS 201 course). While 23% had no knowledge about how to use the library resources.

The distribution of students according to departments, revealed that the largest group were from General Medicine (29%) and the least from department of Pharmacology (7%). See table 1.

The students were asked to work out the checklist for the frequency with which they engaged in six library activities as depicted on figure 1.

Seeking information for coursework attracted most of the students to the library. 90% percent reportedly visited the library for this purpose. General studying of coursework and reading for leisure was common activities for which students used the library as attested to by 85% of the respondents. Many of the students (80%) also used the library to seek for research materials at least once per week. Interestingly 69% of the subjects visited the library to use the photocopier at least once a week. This may be due to dwindling funds and inflation, fewer copies of core textbook are now being

purchased for the library. The undergraduates who constituted the majority of the subjects of this study therefore photocopy most or the whole of the books in order to have access to them. It may also be because until recently, the quality of the photocopy done in the library was better in terms of paper quality and legibility.

When the students were requested to indicate which of the resources that appeared on figure 2 was their first choice in looking for current information, 61% of the respondents named textbooks and journals assigned for the course. Consulting handouts was also popular with 52% of the respondents. The least in popularity were asking classmates or instructors and browsing through books and journals on library shelves. However, when compared to similar study in the United States, where 80% of the students used the computerised indexes and abstracts and 16% the printed, there maybe need for increased publicity of the benefits of these indexes and abstracts for academic studies. There maybe need also, to reduce the price of computerised and Internet Services within the library. A student fee could be fixed so as to encourage them to use these resources. These had 24 and 16 percentages respectively. The use of index database on computer and the World Wide Web were not too popular and received only 15 and 7 percent response. It was also worthy of note that even though asking the library staff for assistance was not the first choice of students 39% said they consulted library staff at some point in their search for current information. The constant need for upgrading of existing knowledge of library staff especially the library assistants who are the image-makers of the department through staff development can not be over emphasized.

TABLE 1: RANKED DISTRIBUTION OF RESPONDENTS ACCORDING TO THE DEPARTMENT

DEPARTMENTS	NUMBERS	PERCENTAGES	RANKS
General Medicine	114	29%	1
Dentistry	101	25%	2
Pharmacy	81	20%	3
Physiotherapy	39	10%	4
Physiology	36	9%	5
Pharmacology	29	7%	6
Total	400	100%	

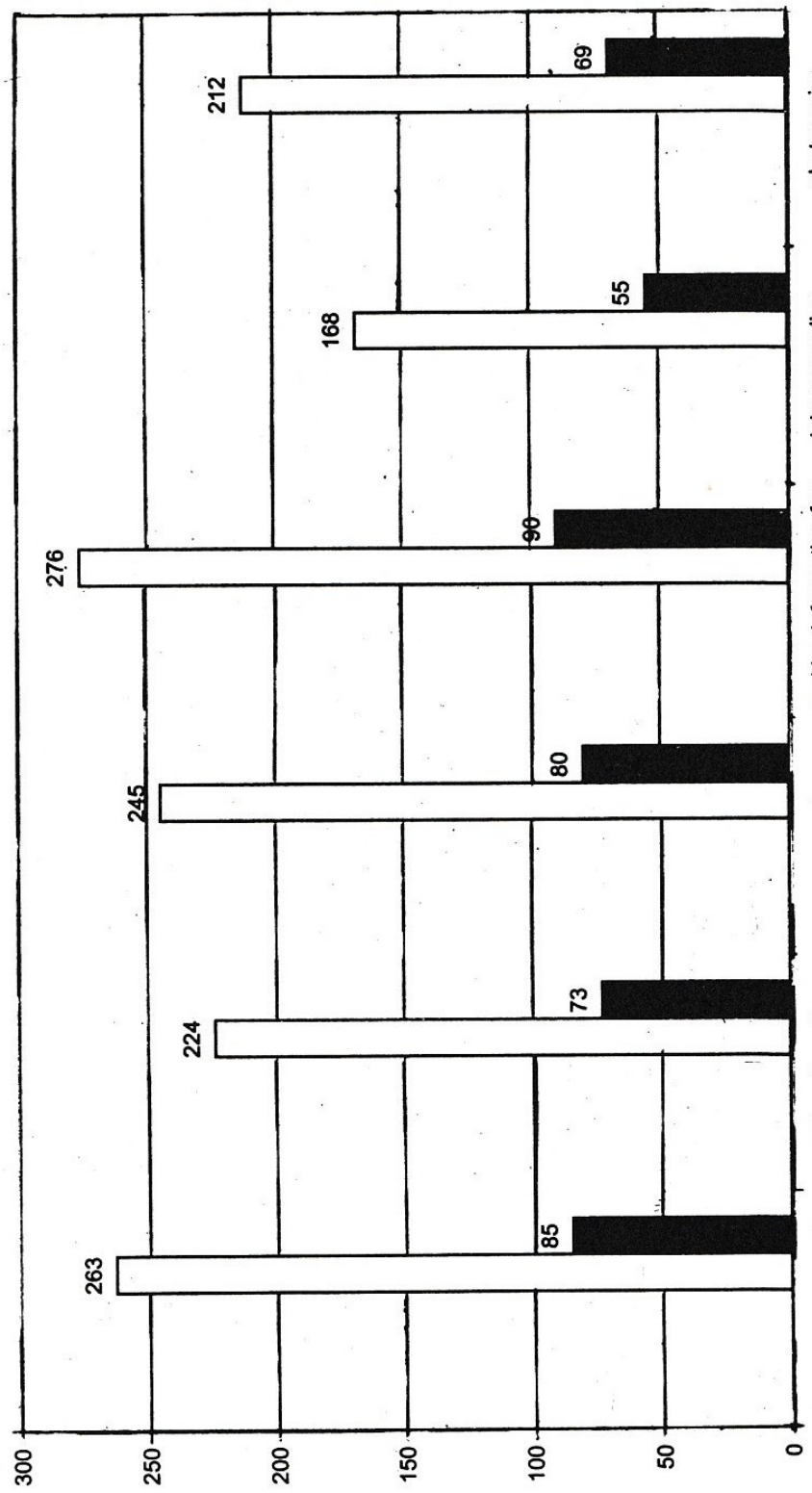

Figure 1. Frequency distribution of students' activities in College of Medicine, University of Lagos

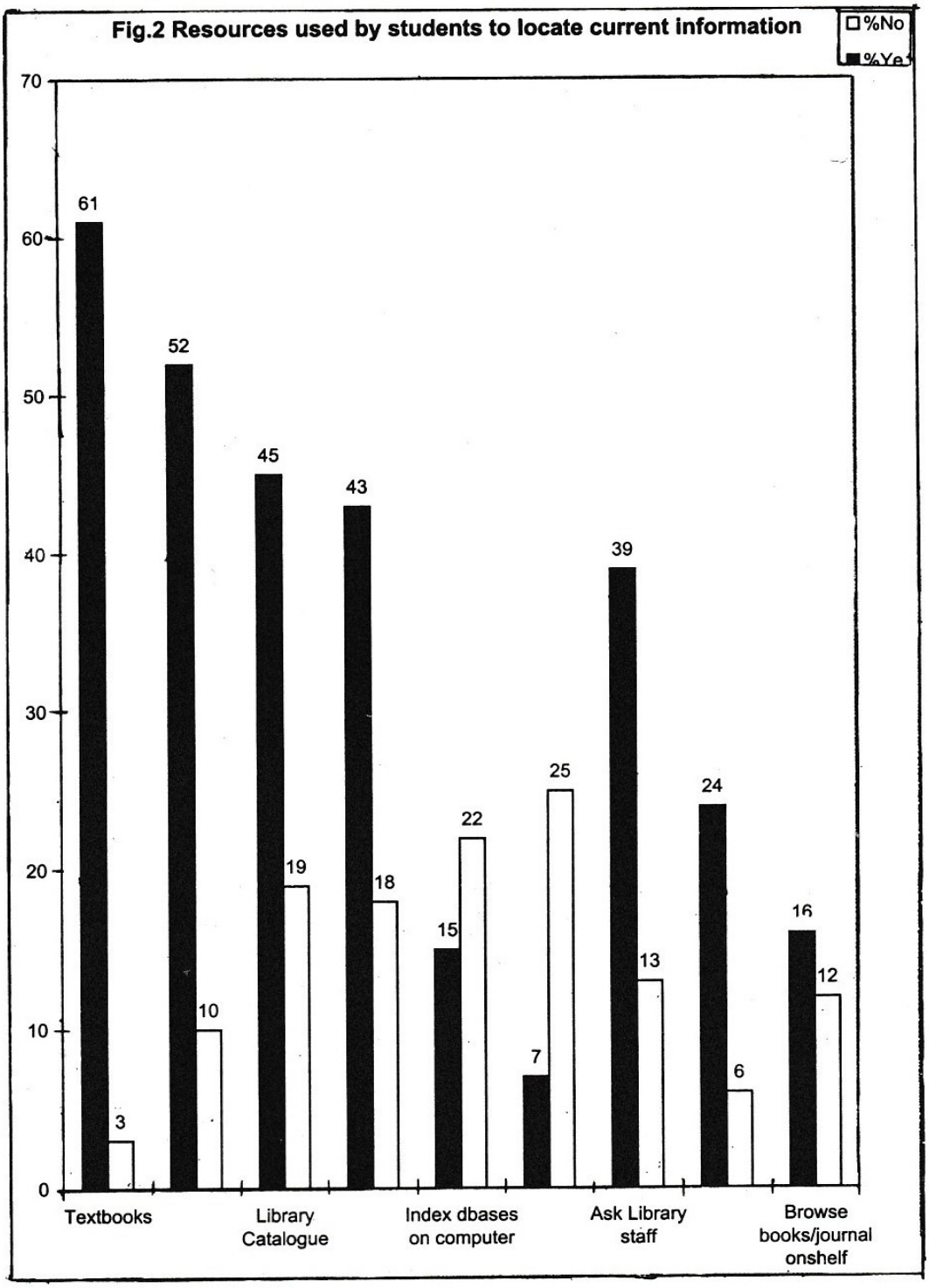
Fig.2 Resources used by students to locate current information
%No
%Ye
70
60
50
40
30
20
10
0
61
3
52
10
45
19
43
18
15
22
7
25
39
13
24
6
16
12
Textbooks
Library Catalogue
Index dbases on computer
Ask Library staff
Browse books/journal onshelf

Table 2: students use of Computerised and Printed Indexes/Abstracts per week frequency of response (%)

Computerised	**1-2 times**	**3-5 times**	**6 times**	**N**	**%**
Medline [CD-Room]	35	19	41	95	31
Medline on the Internet	41	21	48	110	36
Histapathology	34	13	10	57	18
Reference Update	26	16	40	82	26
Internet	26	29	64	119	39
Printed					
Index medicus	35	21	20	76	25
Current contents (Agric Bio & environmental science)	33	16	12	61	20
Current content (life science)	44	31	38	113	37
Biological abstracts	39	25	27	91	30

Index/electronic resources

The Healthsciences students were asked to indicate use of some printed indexes and abstracts and their computerised equivalent, which were available in the medical library per week. Findings as depicted in table 2 revealed that the Medline on the C.D-ROM was very popular with 31% of the students using it 1-6 or more times. The Medline on the Internet was even more popular with 36% user rate. The Reference Update followed with 26% using it. The least used was the Histapathology programme with 18% of the students stating they had used it 1-6 times. The printed Indexes and Abstracts were slightly more sought after with the following percentage of usage from one to six or more times being 37% for current content (life science), 25% for index medicus, 30% for biological abstract and 20% for current contents (Agricultural biology and environmental sciences). In general, the printed and computerised resources were not used by at least 50% of those questioned. This may be due to the fact that the undergraduate students who constituted a majority of the subject of this

study do not research as much as the postgraduate students and the teaching faculty. Also they may not be aware of the existence of the resources in the library. Forty five percent of the students replied that they were aware of these resources named on table 2 while 40% were not.

The next question sought to discover the source for learning about the existence of the printed and computerised resources at the library. The result reveals 21% of the subjects got their information from medical journals and books. Nine percent derived this knowledge from other medical students and their school curriculum, while 6% got theirs from library staff. The study result also showed that advanced degree students who constituted 4% of the subjects studied tended to use the indexes and abstracts more in seeking current information than 200-500 level students. This may be due to the fact that they conducted more research studies than the undergraduates.

INFORMATION RESOURCES FOR FUTURE EDUCATION NEEDS

Many of the Healthscience students conceded that the electronic and printed resources listed in the survey would have some degree of importance to their future education needs. However, they stressed that owning a personal library, attending continuing education courses and workshops, and conferences will be more important in their future education needs. The students felt that Medical library; continuing education, indexed databases, colleagues and conferences will continue to serve their future educational needs after graduation. The percentages are 91, 91, 90, 88 and 86 respectively. Electronic mail and News group has 81% of respondent respectively indicating their usefulness in their future educational needs. The least of resources attested to by the subjects as being useful to their future educational endeavours were, World Wide Web (computerized information) and personal library with 75 and 74 percents.

The interest in electronic resources by these students has great implication for information professionals like the health sciences librarians. They have opportunity to assist medical educators who teach information retrieval skills that utilize on line and users search systems. Web, Internet and database instruction may be incorporated into the materials of existing courses or taught as a separate course targeting medical resources.

Instruction may be presented to all students in a sequential manner or to just 500 level students. A similar suggestion was made by Bruce (1992), for library professional to be involved with health science educators in providing students with fundamental search skills. He further stated that, present day students would benefit from more exposure to today's electronic technologies as another means of providing for their information needs following graduation. Thus the cultivation of the interest of medical students in printed and electronic resources by medical educators and libraries will ensure that all graduating students have necessary expertise to search traditional library resources as well as to navigate the on-line World Wide Web. It will also provide for students a means of finding information particularly well suited for handling rapid advances in the medical profession

CONCLUSION AND RECOMMENDATIONS

The basic patterns of library activities and information seeking behaviour of seeking information for coursework and researching appears to be common, with response rate of 90, 85 and 80 percentage respectively. This study also reveals that some students did not use the printed or computerised resources in the medical library very much. The most used printed material were current content (lifescience 37%) while the most popular computerised indexes/abstract was Medline on the Internet (36%). Despite the low usage, the result of this survey also showed clearly that some of the medical students were receptive to using the electronic and print resources. The interest in electronic resources by these students has great implication for information professionals like the healthsciences librarians. They have opportunity to assist medical educators who choose to teach information retrieval skills that utilise on line and users search systems.

The majority of the students seemed to know the importance of looking for information especially, current information beyond textbooks and handouts. Electronic resources could play the role of reducing the information isolation of many medical practices. The education process could now focus on those students who indicated that they were not aware of the existence of the tradition/electronic resources, particularly the Part IV & V students who would soon become practitioners and could also benefit immediately from the wealth of information that computerised resource have to offer. Web,

Internet and data base instruction may be incorporated into the materials of existing courses, taught as a separate course targeting medical resources. Instruction may be presented to all students in a sequential manner or to just 500 level students who maybe practicing in the rural areas especially in a developing country such as Nigeria after their graduation.

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