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### Downsizing a Pharmacy Library Collection and Meeting the Information Needs of Clinical Pharmacists in a Nigerian Teaching Hospital

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## INTERNATIONAL LIBRARIES

# Downsizing a Pharmacy Library Collection and Meeting the Information Needs of Clinical Pharmacists in a Nigerian Teaching Hospital

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*The creation of Faculty of Pharmacy at the University of Ibadan led to the downsizing as well as the relocation of more than 80% of pharmacy books and journals from the medical library to the main campus about 15 km away from the teaching hospital/ College of Medicine library, where the books were initially housed. This study revealed the hardship and problems encountered by the clinical pharmacists in the teaching hospital who were using these resources before they were relocated. The pharmacists proffered solutions to some of the problems, especially as the researcher gave them a free hand to suggest four core resources they would appreciate finding in the library. Their suggestions would guide selection of relevant resources for their use by the library. The study also determined that the study group would have gained from using the HINARI database, which the study revealed was the least used of the electronic databases available in the library, whereas the Internet was widely used as source for medical information. Though all the participants in the research claimed to be computer literate, 97% clamored for training by the librarians on information-sourcing skills.*

**KEYWORDS** *clinical pharmacy, information, library collections, library policies, Nigeria, teaching hospital*

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## INTRODUCTION

The University of Ibadan is the premier University in Nigeria, with a Library System comprising a Main Library called Kenneth Dike Library (KDL), seven Faculty Libraries, and one College Library. The College of Medicine Library, University of Ibadan, is also known as the E. Latunde Odeku Medical Library (ELOML). Founded in 1966, it is situated on the same campus with the University College Hospital (UCH), Ibadan.

The University College Hospital (UCH), Ibadan, is Nigeria's pioneer teaching hospital. It is an 800-bed hospital with state of the art equipment for treating diseases, and a versatile Pharmacy Unit, with 56 pharmacists on board, rendering 24 hours services everyday of the week on the hospital's payroll (1).

The ELOML caters primarily to the information needs of the entire medical and paramedical staff of the College of Medicine, University of Ibadan, as well as the medical, paramedical, nursing staff, and the schools of the University College Hospital (UCH). The pharmacists in the UCH constitute a minority of the paramedical library users, yet an inevitable part of the health care delivery system.

Pharmacists traditional roles include making drugs and dispensing the drugs to patients but "the roles are rapidly changing from one of solely making and dispensing drugs to one of being an active member of the health care team" (2). These new responsibilities have required pharmacists to acquire expertise in the storage of data, distributional and inventory control functions, and management of data for drug histories, patient records, quality assurance programs, and drug information services. Pharmacists now provide services that transmit the knowledge and skills at their command to physicians, other pharmacists, and patients. They are being challenged to be key players in the health sector and they now "counsel patients on medication use, and recommending to and advising physicians on drug therapy." Today, pharmacists are seen as "primary providers of what is called pharmaceutical care" (3).

In Nigeria, the pharmacy profession has gone through some evolution. Since 1960, many developments have taken place in the education, legislations, and practice of pharmacy in various areas, including industry, hospitals, and communities. The introduction and acceptance of clinical pharmacy into the practice of pharmacy in Nigeria in the 1980s led some hospital pharmacists to be involved in clinical activities, including drug information services and unit dose dispensing (4). It is assumed in pharmacy practice and pharmacy literature that pharmacists employed by the hospital to work in this unit of the hospital are the clinical pharmacists. According to Scroccano and colleagues, all practicing pharmacists could be referred to as clinical pharmacists as long as they are involved in activities that could influence the correct use of medicines, counseling, drug use

review, and postmarket clinical studies, randomized control trials (RCTs), and drug dispensing (5).

According to Oparah and Arigbe-Osula, the pharmacy profession and practice of clinical pharmacy did not start early in Nigeria as a well-defined health care area as it is today (6). They further stated that greater emphasis is now placed on providing direct practices as in other countries, where the concept of clinical pharmacy and pharmaceutical care is gradually but firmly revolutionizing the pharmacy profession. Recent challenges and development make the pharmacists more visible in the health sector, giving them the opportunity to be fully integrated into the health sector that was dominated for too long by the physicians and nurses.

Pharmacists, as an integral part of the health care delivery team in any hospital, be it in a teaching hospital attached to a college of medicine or a community health care center, deserve to be as adequately informed as their counter parts in the health care sector. Keeping pharmacists clinically informed is supposed to be one of the primary duties of the hospital or medical library. This group of library users, despite their insignificant number compared to other professionals constituting the health team in hospitals, is also very important.

The Department of Pharmacy, College of Medicine, University of Ibadan, evolved to become an autonomous Faculty of Pharmacy in the year 2001 (7). Prior to this, ELOML catered to the information needs of both the practicing clinical pharmacists and pharmacists in training.

Until 2005, the ELOML contained a fairly large Pharmacy Collection of about 1430 monographs and 23 local and international pharmacy journal titles. With the creation of the Faculty of Pharmacy, more than 80% of this book collection was relocated to the newly created Faculty of Pharmacy Library, and the journals were housed at the University main library, (Kenneth Dike Library or KDL), both on the main campus. This campus is about 15 km away from the teaching hospital. The residual print collection consisting of 25 pharmacology and drug books; as well as three local journal titles are presently kept on 'Reserve' particularly for clinical pharmacists and other categories of library users in the teaching hospital as well as the College of Medicine.

There are also a few electronic resources on CD-Rom and vast online resources available through the Internet and HINARI for this set of library users. The incessant and frustrating power outages in Nigeria, coupled with the downsizing of print pharmacy collection at the ELOML, led the researcher to investigate if the medical library is optimally serving the information needs of the Clinical Pharmacists. Thus, the following was investigated:

- Effects of the relocation of Pharmacy print collection to the Main Campus
- Effects of the downsizing on information needs of the clinical pharmacists

- The usefulness of available print and electronic resources for the day-to-day information needs of the clinical pharmacists
- Ways of building a more functional pharmacy collection

## METHODOLOGY

On the payroll of the University College Hospital are 56 pharmacists managing six pharmacies on the first to the fourth floors of the lying-in wards of the hospital as well as at the Accident and Emergency Unit (AEU), and General Out-Patient (GOP) clinic on the ground floor. A questionnaire was designed and the draft was sent to the Chief Pharmacist/Head of the Pharmacy Unit in the UCH, for vetting and input. The researcher had earlier sought official permission from the hospital management and the head of the unit, to carry out the survey. Permission was granted after effecting some changes in the survey instrument.

### Sample and Instrument

The study was conducted for 2 weeks in June 2007 among the clinical pharmacists working in University College Hospital. A three-page questionnaire consisting of 13 questions was distributed; 10 structured questions with options, and 3 nonstructured questions to be freely answered comprised the questionnaire. These questions touched on (a) demography, (b) use of library resources, (c) effects of relocation of pharmacy print collection, and (d) expectations and suggestions on how best the information needs of this group could be met.

At the end of the second week, 40 (71%) out of the 56 questionnaires were duly filled/answered and collected; the remaining 16 (29%) were not returned. The study would henceforth be based on the 40 questionnaires returned for analysis. The researcher faced limited challenges because the study group was not too large and the Head of the Unit was immensely supportive.

## RESULTS AND ANALYSIS

All participants have the first degree in Pharmacy, and 12 have either singular or multiple additional qualifications like postgraduate degrees in Public Health, Community Medicine, and diploma certificates in Computer Science. All the 12 with additional qualifications claimed having a diploma in computer science. It is notable that 50% of the participants do not participate in ward rounds; 25% do participate regularly, and 25% occasionally participate.

### Use of Library Print and E-Resources

Fifty percent (20) of participants used the library weekly, 25% seldom used the library, and 17% never used the library. Participants used library resources mostly for drug updates (60%), drug administration (50%), or patient management (25%). Drug information and research needs carried the same percentages (12.5%). The reasons reported for not using the library frequently by this study group ranged from inadequate current journals (38%), lack of time (25%), overwhelming volume of online information (20%), heat in the library (11%), and other reasons such as 'power outages,' 'reading room congestion,' and 'noise in the library' (6%). The electronic resources often consulted in the library by this set of pharmacists under study are MEDLINE on CD-Rom (75%); HELIN database (Health Literature in Nigeria) (50%); Pharmaceutical databases (40%); Internet (100%), and HINARI (20%). Participants were allowed to tick as many boxes as applicable thus the more than 100% score (Table 1).

### Assessment of Library Resources

Rating the library's print resources, the study group indicated that the resources were good (23%); satisfactory (27%); outdated (20%); poor (7.5%); and excellent (2.5%). The remaining five respondents rated the resources as 'archival,' 'obsolete,' and 'too old.'

### Reaction to Downsizing of Pharmacy Materials

Concerning down sizing of the pharmacy books and journals in the library, 75% claimed they were aware and 25% were not aware. Asking for their reaction to the downsizing and relocation, 50% claimed frustration; 35% were indifferent; 10% were unhappy; and 5% claimed they were happy.

### Suggestions on Improving Library Resources

Suggestions on how best the library could meet their information needs, thereby serving them optimally, indicated 95% wanted more journals and books; 97.5% wanted to be trained on how to navigate and acquire the

**TABLE 1** Which of These Electronic Resources Accessible from the Library Do You Use Often?

	MEDLINE	AIM database	HELIN database	PHARMACEUTICAL databases	HINARI database	Internet
<i>N</i>	30	14	20	15	8	40
Percentage	75%	35%	50%	37.5%	20%	100%

*N* = number of respondents.

TABLE 2 Immediate/Future Expectations from the Library

	Purchase of more print and e-resources	Training on available e-resources	Current awareness bulletin (electronic)	Current awareness bulletin (print)	Alternative source of power
<i>N</i>	38	39	Nil	10	40
Percentage	95%	97.5%	Nil	25%	100%

*N* = number of respondents.

necessary pharmaceutical information online; 95% wanted more electronic resources available in the library; and 25% wanted the library to send out information on available resources periodically in print (Table 2).

When given the opportunity to suggest four journals (print or e-journals), respondents would want readily available in the library: 75% wanted AHPs; 50% Merck Manual; 61% drug interactions on CD-Rom; and 50% *American Journal of Health System Pharmacy* (AJHSP).

## DISCUSSION

From the analysis of results, about 50% of the study group did not make use of the library weekly, whereas the remaining 50% seldom or never use library. The reason claimed for not using the library was not mainly lack of time (20%) but because the library stocks inadequate current journals (78%). Other reasons were heat in the library (60%), power outages, reading room congestion, and noise in the library' (52%). Respondents were asked to pick as many reasons as were applicable.

Lack of current journals, heat in the library, power outages, and reading room congestion are peculiar problems faced by most government owned libraries in developing countries due to poor funding of university libraries. Studies conducted by Marton and cited by Igbiosa and Idioidi on 18 university libraries and 11 from sub-Saharan African countries show a dismally low level of funding (8, 9). Poor funding of federal university libraries in Nigeria has over the years taken its toll on the management of tertiary libraries leaving inadequate collection development; inability to keep pace with modern technology in information gathering, storage, and delivery services.

From the results of this study, it was noted that self-assessment of the library resources reflected the frustration of the study grouping that 43% rated the resources as 'poor,' outdated, 'archival,' and 'obsolete' and too old. Proper funding of the university libraries would allow proper planning and acquisitions of relevant resources while the purchase of an alternate source of power as strongly recommended in this study should be given serious consideration.

From the responses to questions on use of library resources, it was apparent that pharmacists responding to the survey use library resources mostly for drug update (60%), drug administration (50%), and patient management (25%). The most highly consulted electronic health databases resources was MEDLINE (75%). This is probably due to the fact that MEDLINE is available without cost from the National Library of Medicine through PubMed and it is often easier to get electronic access to MEDLINE than to local telephone directory (10).

Another database consulted by about 50% of the study group consulted is the Health Literature in Nigeria (HELIN), which is an in-house database maintained by the library. It is a compilation of bibliographic details of full text journal articles physically available in the Nigerian Collection Section of the ELOML.

Online pharmaceutical databases enjoyed 40% patronage by the study group, whereas there was an insignificant (20%) use of HINARI. HINARI is a research-based database with more than 3000 journals accessible online, of which 17 are pharmacy journals. Presently Nigeria, like some other developing countries, is enjoying free access to HINARI. Optimal use should be encouraged to make up for the lack of funds to procure current health information journals in our libraries.

It is noteworthy that the entire study group claimed using the Internet as a source for information. Use of the Internet for health information by health care professionals is a global practice and this is reflected in this research.

The author was able to verify that this study group faced some hardships using the library resources and that it was more frustrating for them that pharmacy resources were downsized or relocated as 60% claimed frustration and unhappiness. Asked to give suggestions on how to make the library useful and acceptable to this group, 97% of the pharmacists wanted more current journals and books and 95% wanted more electronic resources to be made available.

A high percentage of the pharmacists (97%) requested training on information skills in order to access relevant health information. It is an indication that the pharmacists are responding to "forces, including technology, shaping pharmacy's future" (11). Information retrieval skills are invaluable to any group of researchers as there are hundreds of millions of documents scattered over the Internet.

This plethora of information has been a driving force for the development of sophisticated search engines, which threaten to supersede traditional cataloguing systems. It is also significant to note that pressure for this evolution in document searching and retrieval has not come from librarians but from the users and this has reshaped the traditional roles of librarians to embrace the emerging technologies (12). The onus is on librarians to get properly equipped with emerging technologies and in turn ready to train



their library users to use the online resources for relevant information needed.

Funding has been a fundamental problem in developing countries, with libraries not being able to afford subscriptions to every pharmaceutical database. Additionally, the librarians know the best model may not work unless users are involved in the selection of resources (13).

The pharmacists in the study were given a free hand to suggest four journals to which wanted the library to subscribe. *American Hospital Pharmacy System* (AHPS) was suggested by 25 (75%) of the pharmacists; *Merck Manual* 50%, and *American Journal of Health System Pharmacy* (AJHP) by 50%. For e-resources, 61% suggested drug interactions on CD-Rom and 25% wanted a current awareness bulletin in print that would inform them regularly about new arrivals or useful websites. Though the incessant power failures in this part of the world could be the reason for not finding electronic dissemination of local information attractive or comfortable, the library should make available the electronic versions of such bulletins on the library Web site.

## CONCLUSION

The backbone of any information service or library remains its collection of materials and resources.

This study sheds light on effects of poor funding of the library and its consequences on resource acquisitions as being least encouraging to the survey group in using the library. Pharmacists would probably use the library more if mundane problems, such as lack of current journals, heat in the library, and power outages, were solved.

The library systems should have policies that support expansion and the means to cope with providing for the information needs of any particular group of library users. Downsizing or moving collections of resources should not be allowed to deprive information from any user groups.

There is a lot of information available on the Internet. To remain relevant in the information age, health librarians should be trained and retrained to keep up with training needs of their clientele. Dependence on librarians to get trained on skills that will enhance searching and ability to scoop relevant information for professional use was revealed in the study, when 97% of all those involved in the study requested training on information access skills. This again buttresses Rashbass' (14) claim that health librarians need to be competent at searching and finding information. They also should be computer literate and skilled in the use and application of applications in order to cope with emerging new roles for librarians as information technology (IT) instructors.

Marketing the library and its resources is another issue that cannot be overstretched. If librarians are not seen or heard, the possibility losing their grip on their immediate constituency would be high. Current awareness bulletins in hardcopy should not be viewed as traditional by librarians from developing countries; rather they should be optimally utilized in targeting the information needs of any targeted group of clientele.

Power outages in Nigeria constitute a big problem to libraries discharging their primary duties. It would be advisable for library management or heads to find means of gaining institutional consent to procure alternate sources of power in order to be able to function optimally in serving their clientele.

The researcher realized through this study the probable negligence of this group of library users by the dearth of research works available for the information needs of clinical pharmacists. More attention should be paid to the information needs of such groups irrespective of the fact that they are in lesser number compared to other medical professionals in the hospital.

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