

CHAPTER 5

ACCESS TO INFORMATION RESOURCES

5.1 Introduction

The medical professionals interviewed continually identified issues with both physical and electronic access. To facilitate the medical doctors in their efforts to keep up-to-date and carry out literature search as appropriate, it is important to consider a number of aspects of library and information accessibility. Location – proximity to the library services is an issue of critical importance in determining whether or not the resources within it are likely to be utilized, as are the opening hours of such facilities.

All those interviewed requested that access to information resources be provided in a variety of ways, including electronic delivery, direct contact with information professionals, resources based near departmental areas and a separate library area. In this chapter issues identified with physical access are discussed.

5.2 Availability of information services

Medical professionals at KNH have limited access to library and information services at their place of work. This study found that the hospital had no designated library to cater for the clinicians, save for a few book titles that were housed in one of the office room located within the personnel department. According to the library assistant in-charge the total collection was about 2000 titles. However, these contained very scanty and obsolete

information materials for clinical purposes. The hospital did not subscribe to journals and neither does it have a collection development plan.

It is not surprising therefore, that only three respondents reported availability of information sources at KNH. Eight respondents reported availability of 'some' of the sources, while twenty-five out of thirty-nine respondents reported non-availability of formal sources at the hospital. Due to the lack of access to the required information and non-availability of information services at their place of work, the participants reported making use of other libraries and information services to meet their information needs. These information systems and services are shown on the table 5.1 below:

Table 5.1: Use of information services as reported by respondents (n =39)

Information services used	Number of Respondents	Percentage (%)
Internet (from commercial cyber cafés)	27	69
University of Nairobi Medical Library	20	51
Nairobi Hospital Library	3	8
AMREF Library & Resource Centre	2	5
Drug Information Service (at KNH)	2	5
Personal collection	2	5
Aga Khan Hospital Library	1	3
Africa Air Rescue (AAR)	1	3
KEMRI Library	1	3
WHO Library (Nairobi)	1	3

In comparing the use of different information services, it is interesting to note that the University Medical school library is used more than other libraries because of its accessibility and proximity to the hospital. Besides, KNH and University of Nairobi have a cordial relationship in the provision of clinical services KNH is used as a teaching hospital by the University of Nairobi medical students.

All respondents reported lack of Internet facilities at their place of work and accessed the services from commercial cyber cafes outside the hospital. One respondent however, reported having the Internet services at home from where he accessed the electronic information resources. Only one respondent reported using a Personal Digital Assistant (PDA) to access electronic resources.

According to the participants, the information resources were not adequate to cater for the diverse information needs of medical professionals. In this respect some of the respondents said:

Certainly not, most of the key e-journals from the internet are restricted; one needs to subscribe to get access to them. (Int001)

For the management of patients, they are adequate, but for research they are not; we depend on the Internet. (Int003)

Books from the library are also inadequate and most of them are outdated. (Int008)

However, seven out of twenty nine respondents said that the information sources available to them were adequate for their clinical needs. The

telephone and attendance at conferences provided other important means of accessing information especially on emerging health issues and new medical practices.

5.3 Limitations to information access and use

The participants consistently identified several barriers to information access and use. These include: lack of access to a hospital library, availability and location of information resources, lack of up-to-date books and journal subscriptions, lack of computers and internet facilities, relevance of internet information to the local context, cost of information materials, lack of computer and internet searching skills/computer illiteracy and, lack of general awareness of available information

Lack of access to library and information services: Kenyatta National Hospital does not have a functional hospital library to cater for the clinicians. When the participants were asked what limitations/constraints affected access and use of information, one respondent said:

There is no resource centre for the staff; and no hospital library to cater for the medical professionals' information requirements. (Int021)

Due to lack of a hospital library and information system, the respondents reported use of other institutional libraries and information services to meet their information needs [see table 5.1]. Obtaining information that can only be accessed from locations outside the hospital is a problem in itself due to their schedule of work. This was testified by majority of the respondents:

Unavailability of information materials, information sources are far located and scattered in too many sources away from KNH, some of which are too old. There are no Internet sites/or other information sources at the times of need for example at night. (Int016)

Materials are not available in the first place. Some of the information materials are old, and most of these sources are located so far. (Int011)

But also using other institutional library services is not without problems since they have to comply with the terms and conditions of service. As these respondents noted:

The University of Nairobi Medical Library has become very strict to KNH staff, unless you are familiar to the library staff. It is very frustrating. This is a problem as KNH does not have a library. (Int004)

It is also increasingly difficult to gain access to the medical library of the university. If you are not a university employee or a medical student, you have to pay a [subscription] fee that I have not paid. (Int015)

In general all the respondents did identify the very limited availability of information resources as a major limitation and a barrier to information access; *'information materials are simply not available'*. Lack of journals, lack of up-to-date textbooks and basic medical reference works in libraries was also repeatedly noted by most of the participants as a significant barrier to information access and use. Most comments about information resources by the respondents referred to access issues, holdings and general assistance.

Three respondents were of the view that:

The libraries are not well stocked; there are only a few books most of which are not current. (Int007)

Most books are outdated and there are no journals. (Int001)

The library staff (Medical School library) is not helpful in any way; they do not give assistance. (Int005)

The general lack of computers and Internet facilities at their places of work was raised by the participants as one of the major barriers contributing significantly to lack of access to information:

There are no computer networks and no internet facilities available to the physicians at Kenyatta National Hospital. (Int020)

Probably [this is due to] lack of financial resources and inadequate infrastructure. (Int015)

Majority of the respondents recognized the usefulness of the Internet as well as the problems of being unable to gain access to computers with access to online information resources. One of the respondents lamented about: *“limited resource persons, delays in data retrieval due to lack of computerization and limited Internet centres.”* (Int024)

The use of the Internet is not unproblematic. The cost of surfing the World Wide Web from commercial cybercafés is prohibitively expensive, at about ninety Kenya shillings per hour while printing of downloaded information is ten Kenya shillings per page, with most of the users only being able to spend only a few minutes online due to economic and financial constraints. During this short period, most of the users only make use of the Internet to send and receive e-mails.

The most articulated emotion about the use of the Internet was the information overload and frustrations with waiting for documents to download.

In dealing with information overload, Royce (1997) argues that individual information literacy skills are critical to good information use. He also argues that the *medium* of delivery is irrelevant to information overload, that is, the medium used can affect the rate of development of overload but not necessarily the fact that it develops at all.

Sometimes the speed of the Internet is too slow; you take so long to open a document, with limited time you get frustrated and go. (Int005)

Too much information from the internet, time is also limited for most of us. When the Internet slows down you get really annoyed. (Int004)

Too much from the internet with a lot of irrelevant stuff, you end up wasting a lot of time browsing and going through these materials and sometimes you even don't get what you want. At times the internet gets too slow and you get frustrated. (Int002)

Denning (2002) suggests that individuals should look to techniques such as improved time and load management to solve information overload rather than look for technological solutions. To counter individuals' finite processing capability some solutions offer filters either through electronic desktop products or through human agents such as clinical librarians or knowledge officers or a combination of both electronic and human services. Librarians have a pivotal role around managing the overloaded health information outputs as the use of electronic methods on their own to ease information overload can have the reverse effect. Childs (2004) also argues persuasively that clinical librarianship can be seen as an attempt to solve the twin problems of information overload and the implementation of evidence-based practice.

The participants also explicitly articulated the relevance of the information from the Internet as it relates to the local context. As illustrated by the expressions from two respondents:

... [There is] a lot of irrelevant information from the internet, and limited information from our local context. (Int022)

... Most of the free information is not relevant and there are little African oriented problem-solving approaches in the Internet. (Int017)

Regarding the slow response time and inadequate Internet facilities at the medical school library, one respondent noted:

The speed of the Internet is slow and a lot of competition from the undergraduates for the Internet facilities at the medical library. Sometimes you spend two hours trying to download an image and you are not successful you get annoyed and leave. (Int003)

Most of the relevant and reliable websites will require subscription to gain access; this also acts as a significant limitation to information access. This issue was consistently highlighted by majority of the participants. As exemplified by respondents in some of their statements:

I think it is because of subscriptions. Some journals require password. They request for pin numbers and user ID that you don't have. (Int003)

.... another major problem with the journals from the internet is that most of them are restricted; you need to subscribe to gain access. (Int007)

Some of the information is only available on subscription only and others in abstracts. Information protection, you need to subscribe to access, so if you need many articles from a number of journals it becomes very expensive. (Int021)

Costs associated with acquiring information are also a burden. Even with the availability of some selected medical information resources availed with no cost on the Internet, the equipment access, document delivery and printing, and electronic subscription costs, however, remain prohibitively expensive.

....cost of good materials is high; subscription is required to gain access to some useful websites... (Int017)

From the interviews with the participants' lack of computer and Internet skills was another barrier to access and use of electronic information resources. One respondent had this to say:

The other problem is lack of technical know-how in the world of technologies. (Int006)

Thirteen out of thirty-nine respondents reported that they lacked computer and Internet skills to enable them access and utilize information from the Internet effectively. Two respondents exemplified this:

I have not had any computer training; I just use trial and error when browsing the Internet. (Int005)

Accessibility; lack of knowledge on Internet use and lack of knowledge on how to spread information: many people [clinicians] are computer illiterate. (Int016)

However, it was noted that even the twenty-six respondents who reported to be competent in the usage of ICTs, had problems in Internet searching skills and were limited to searching of google and yahoo.

Some of us also lack knowledge and skills to browse and evaluate the internet sites for relevance; we end up wasting time going through so much irrelevant information. (Int007)

It is therefore not surprising that majority of the participants expressed the as need for more training to enable them enhance their ICT skills. Frequently, medical professionals would also be hindered from accessing information because they were not aware of what is available or how to locate specific resources most efficiently. Clearly, a gap therefore exists between the medical professionals' need for information and the current systems' ability to deliver it.

5.4 Constraints on the time available to find information

A number of participants interviewed mentioned the constraints of time as a major obstacle to using the libraries or even searching the information from the Internet. This originates from work pressures for the clinical staff at all levels, and the concern that time spent in information searching is not considered a priority in the context of certain specific tasks, as these two respondents stated:

Some of us are also too busy and we hardly get time.
(Int006)

Time to go to the library is also limited. (Int016)

Finding information - to do a search, to analyze and collect information is excessively time-consuming activity. For most of the medical professionals, finding the information has to be done out of normal working hours because of their schedule of duties. Regarding access to the medical library, one respondent reinforced this view with regard to the Medical library at the University of Nairobi:

Medical library operating hours is restrictive to some of us who have very limited time. Sometimes they used to close very early. (Int007)

The remote location of libraries for many and limited opening hours further exacerbates the issue of time pressure. Another respondent also noted:

Lack of time; unavailability of information sources; most of these sources are too old, and the location of the information sources are so far from the work places. (Int014)

For the busy medical professional, travel to a remote library is unattractive – and probably this stimulates the high use of informal sources and other services such as the Google and Yahoo.

5.5 Impact of information on clinical decision-making

Information is essential in health care and health promotion as it improves clinical decision-making and provides both direction and rationale for guiding strategic health behaviours, treatments and diagnosis. If the medical practitioners are to be expected to keep abreast of the ‘best available evidence’ they are likely to require more than their own memory capacity to do so. Weeds (1997) explains that there are enormous ‘voltage drops’ in the transmission line for medical knowledge because only a portion of it is ever loaded into the minds of professionals, and even knowledge that is loaded is not completely retained.

When asked whether the barriers they had identified affected their clinical practice, thirty-five (90%) respondents answered yes; and spoke of unnecessary delays in diagnosis and treatments; and the challenges of

providing quality health care without relevant and reliable information. In this regard, one respondent noted:

As a doctor you need to be updated, otherwise you end up not giving the patients the best. (Int007)

A view supported by other participants:

...sometimes one needs to make decision urgently, and if the information is not available this leads to delays in diagnosis, treatment and the overall management of patients. (Int014)

...slows decision-making regarding management of patient, which takes longer than necessary. A lot of time is wasted and increases the cost of seeking information. (Int011)

Inaccessibility and lack of information also leaves clinicians helpless and inadequate in meeting everyday challenges:

It affects our professional work in terms of competence ...Sometimes you are forced to send patients to other units and hospitals. This leads to delays in treatment and management of patients. (Int005)

Medical errors are also likely to occur since, 'our efficiency is affected'. One respondent concurred:

...since a lot of time is wasted in getting the required information, inaccuracies may occur in the management of patients. (Int017)

Other respondents felt that their clinical work was not affected as such. Their concerns were mainly in their other roles of lecturing, teaching and research.

As these two respondents noted:

For the clinical work they don't. But certainly they affect my research work and progress. It is a bit difficult to get all the information you want. (Int003)

They mainly affect my lectures and research proposal writing, but not clinical work. (Int008)

Another participant also commented on the effects of inadequate working tools and facilities:

...but not so much of information, tools are also inadequate. Facilities are simply not available. (Int001)

Medical profession needs an information infrastructure with which to connect those who produce and archive medical knowledge and those who must apply that knowledge. Studies have supported and shown that patient outcomes are substantially improved when health care is based on evidence from well-designed studies versus tradition or clinical expertise alone (Melnyk, et.al, 2000). However, numerous obstacles to implementing evidence-based practice (EBP) have been cited including: (a) lack of knowledge regarding evidence based strategies, (b) misconceptions of or negative attitudes about research and evidence-based care, (c) lack of knowledge regarding how to search for and appraise evidence, (d) demanding patient workloads, (e) organizational constraints, for example lack of management support or incentives, (f) patient expectations, (g) fears about practicing differently than peers, and (h) overwhelming amounts of medical information and knowledge (McKibbon,1999; Melnyk, et al, 2000).

Management support and encouragement is a key element in overcoming the obstacles and promoting evidence-based culture. In addition, allocating adequate resources to facilitate EBP is very essential to accelerate change in the system to occur. Clarifying misconceptions about evidence-based practice

also is important in *changing attitudes* toward this type of care. For example many medical practitioners think that EBP strategies take inordinate amounts of time, when in reality access to best evidence resources to guide practice can take only a short time.

The process of EBP must be taught so that the medical practitioners can develop knowledge and skills to implement evidence-based care – (for example how to search for evidence in an efficient and effective manner, how to quickly appraise evidence generated from literature searches). This teaching can be done through *continuing medical education, conferences, workshops* as well as educational materials such as the *textbooks; journal articles*, informational handouts and conducting evidence-based practice ward rounds. These types of rounds are an excellent mechanism for introducing the concept of evidence-based care to medical colleagues as well as providing a forum for the latest studies that yield the best evidence in a particular medical area.

5.6 Summary

If clinical decisions are to be made on the best available evidence, it is imperative that this is accessible 24 hours a day. A wide range of information resources, including national and international journals and current texts catering for all professionals is also required. Electronic information resources including and the internet also need to be easily accessible without long waiting periods in order to enhance access to timely information.

Considerable gap, however, exists between medical professionals' need for information and the resources available for delivering information. The participants reported that access and use of information was limited by several factors: lack of access to library and information services at Kenyatta National Hospital, availability and location of information resources, lack of up-to-date books and journals subscription, cost of information materials, information literacy and computer skills, and lack of awareness of the available information. Finally, specially trained and experienced information professionals who can carry out searches for clinicians when necessary and who can teach clinicians to conduct a thorough literature search and use of relevant resources for themselves are essential.