

Distance Education and the Health Sector in Trinidad: The Role of the Medical Sciences Library

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Abstract

A new postgraduate diploma in Primary Care/Family Medicine is being offered through distance education at the University of the West Indies Faculty of Medical Sciences, St. Augustine. A dual mode of face-to-face interaction and distance education is being used initially, with delivery primarily in the distance education mode to follow. Student support services, including library and information resources and services, were identified as crucial components of the programme. The Medical Sciences Library (MSL) is preparing to meet the challenges of providing services to course participants. Technological advances that affect this delivery of health information services to our users can, for our small states in the Caribbean, be utilized to great advantage. However, we in small states need to be mindful of any limitations, since a major part of the course content is planned for delivery in this mode. The role of the library in facilitating this training is extremely important for the effectiveness, efficiency and quality of health care in the region. This paper gives an overview of the library's involvement and support, which saw this course from vision to reality.

Background and Motivation

Both the Faculty of Medical Sciences (FMS) and the Medical Sciences Library (MSL) opened in October 1989, in a new medical complex situated in Mt. Hope, some two miles away from the main campus of the University of the West Indies (UWI) in St. Augustine, Trinidad. The MSL is a branch of the Main Library. St. Augustine is one of three campus territories of the UWI, the other two being Cave Hill in Barbados and Mona, Jamaica. There are eleven other noncampus locations throughout the island chain.

A new postgraduate diploma in Primary Care/Family Medicine is being offered through distance education by the UWI, FMS, St. Augustine. It had

been noted that new demands have been placed on general practitioners by health care transition, health sector reforms, increased public and patient expectations, and advancements in medical science and technology. Georgiev (1996), in his course proposal, had also noted that physicians would encounter clinical, social, emotional and behavioural problems, the management of which goes beyond clinical expertise. This combination of factors contributed to the decision to retrain general practitioners in the provision of comprehensive care. Many of the doctors currently enrolled in this course were educated before the computer era, and a few of them were not comfortable with computers and the associated technology. Additional skills were

therefore needed. The Ministry of Health recognized that with reform, there was an indispensable requirement for retraining.

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The Involvement of the Medical Sciences Library

From as early as 1993, the management of the MSL had put forward a proposal for the provision of information resources for distance education. In 1995 Greenidge documented this need in her paper entitled "Health Information Services for Caribbean Distance Learners", which was presented at the 1995 International Congress on Medical Librarianship (ICML). By 1996, key library personnel had been selected for administrative and operational training to support this thrust. Out of this training, which included local and foreign workshops, came another document, entitled "Information Literacy: A Guide for Finding and Using Information for Lifelong Learning" (Hosein, 1999). Both these papers influenced the path taken by the MSL.

Further to this, the MSL around 1994 had intensified its Information Literacy Programme to all students and staff, to include topics such as Medline: Basic and Advanced, International Pharmaceutical Abstracts (IPA), Medcarib, Procite, EPI Info, Introduction to Computers, and later, Introduction to the Internet, and PubMed. All MSL librarians were involved in producing modules and handouts for this expanded

programme of information literacy, and teaching many aspects of what are now components of the current course.

When funding was sourced in late 1998, and contracts signed between the government and the UWI for the course to proceed, a Distance Learning Launch and Exhibition was mounted. The MSL and the faculty made use of that opportunity to mount their own display. Another library display took place in mid-1999. These displays sought to promote the willingness and ability of the MSL to serve distance learners.

In the planning stages of the course, the MSL prepared and distributed a demo diskette indicating the portability and potential of the technology. This demo contained a web page, available as a local file read by a browser at the student's location.

There was a library orientation for the group of students and their lecturers, which included a brief introduction to MSL services and a guided tour of the library. Since the classes were between the hours of 5:30 and 8:30 p.m., the librarians volunteered to work after normal working hours in order to facilitate the group.

A pre-course survey to determine the level of proficiency in basic computer skills of the group was conducted. All librarians collaborated on the design of a questionnaire, which was adapted from another source. Results revealed, *inter alia*, that only four persons of the group of nineteen had attended a formal computer course, including courses on Windows 95 and other basic computer literacy courses such as spreadsheets, word-processing and communications. All nineteen persons knew how to save and copy files to a diskette and hard drive, as well as how to print a document. Fifteen practitioners owned a computer, and fourteen of those were connected

to the Internet. But of the fifteen who owned computers, only nine used the computer on a regular basis at home, while only one used it on a regular basis at the office. Ten persons were already equipped with e-mail addresses.

The MSL was responsible for Phase 2 of the course “Learning and Teaching in Primary Care”. The MSL component was titled “Information Resources for Learning and Teaching in Primary Care”. This phase covered eight modules over a three-week period. Each session covered represented distinct skills requirements. Lectures, demonstrations, printed handouts and hands-on opportunities were used. At the end of the course, each student was given a package, which contained a copy of the diskette with all the topics covered, and all the links that were identified as useful for further exploration. Included also were handouts and the document “Information Literacy: A Guide for Finding and Using Information for Lifelong Learning”, which was prepared by one of the university librarians, and which was adapted for use by MSL.

The theme for Week 1 was “Introduction to Health Information Resources”. Sessions included:

Locating and evaluating health information, which covered topics such as introduction to concepts; kinds of information and publishing; information formats; and tools for finding information.

Skills base for managing health information resources, which covered topics such as basic computing skills; browsers/keyboards; the Windows environment; networks; security; viruses; use of the PC in medicine; Internet/ e-mail; and hardware/software.

Innovations in health information practice, which covered an introduction to

evidence based medicine/practice; databases and data banks; and an introduction to medical informatics.

The theme for Week 2 sessions was “Using Electronic Information Resources”, which covered:

Effective search and retrieval principles, including such topics as Ovid MEDLINE on CD-ROM; formulating effective search/retrieval strategies; developing enhanced search/retrieval skills.

MEDLINE on the Internet, which included areas such as Internet Grateful Med and PubMed.

Finding biomedical information on the Internet, which looked at areas such as patient information, clinical queries, discussion groups/ mailing lists and e-journals.

The theme for Week 3 sessions was “Health Information Resources and Citation”. Sessions included:

Evaluating information resources, which covered areas such as critical appraisal of literature; and critical appraisal of information on the Internet.

Managing bibliographic references covered areas such as using Procite, Endnote, Biomednet and Reference Manager.

There was also a course review in which assessment tasks were given. These tasks included:

- Joining and leaving an electronic discussion group
- Subscribing and unsubscribing to a mailing list

- Posting to a discussion group
- Locating an electronic serial and printing an article or abstract
- Executing a search on Ovid MEDLINE database or via Internet, and printing the results
- Creating a small database and generating a bibliography

Challenges and Small States: The Difficulties in Delivering the Course

The major challenge of distance was that being in isolated districts in various parts of the country and having to commute to attend classes proved to be problematic for a number of the practitioners, especially those from the sister isle of Tobago. Others from areas in the deep south of the island expressed concern as well.

Delivery of the sessions as planned also developed some hitches. Initially, the librarians understood that the course would be taught on three contact days per week. However, difficulties arose in attending, since in Phase I of the course, students had become used to attending on one day per week (Wednesday), and had planned their itineraries accordingly. After the first week's sessions, it was decided to compress the Tuesday and Wednesday sessions into Wednesday's class, and compress Thursday's session with that of the following week's Tuesday class, shortening week 2 to two sessions only. Wednesday's and Thursday's sessions of week 3 were compressed into one class, held on the Wednesday. A wrap up session was held the following Wednesday. In this session concerns about the assignments were raised and clarified. Procedures for completion of tasks were also discussed.

It has been noted that challenges of scale, isolation and dependence are among the other major

challenges faced in small states. The following can be identified as the particular challenges faced in the preparation and delivery of this programme. As early adopters of this mode of delivery of an information literacy course, a team approach to the development of the course content was needed to ensure optimal use of already stretched human resources. Further, the librarians as a group worked in isolation grappling with the new technology.

The librarians had to keep up with their regular portfolios as well as design and deliver this course. This presented further challenges in terms of human resources.

There was also a very short planning period for the presenters/facilitators, since the programme was initially postponed and then reinstated without much notice to the MSL. The commencement date was adjusted since the government wished to have training started. It was during this time that the local area network (LAN) was installed at the MSL, so not only was there the short lead time, but also the challenge of mastering the changing technology to successfully complete the delivery.

With its recently installed LAN in place, the MSL has had to develop a sensitivity to the expectations of those requiring library support. The system was unstable and there was not always readily available technical support, as is common in many small states. As users of newly installed technology, we were therefore confronted with the requirement not only to design course materials so that the more traditional print approach could be utilized, but also to find alternatives (such as downloading to diskettes or using stand-alone computers) whenever necessary.

Due to the lag in technological innovation which we experience in small Caribbean states, access

and familiarity were not on an equitable basis for all students. This was borne out by the results of the pre-course survey. Here was another reason for having to use a more traditional approach.

To address the issue of scale, reflected in this instance as the small numbers for whom the course content was primarily developed, consideration of wider dissemination of this particular course with the broader objective of enhancing the information literacy skills of our regional practitioners should be considered. Plans are already in progress to effect this idea locally.

Even if it was not considered cost effective to mount this course because of the small number of persons involved, it can be seen as an investment in the health of nationals, in terms of an enhanced quality of health care that will henceforth be rendered by the practitioners involved. The course is also intended to be ongoing, so there will be an increment in the number of those receiving training, as well as those receiving enhanced care. Healthy individuals contribute to a more productive economy.

Many of the barriers to the delivery of library services to Caribbean distance learners are documented (de Four, 1997; Watson, 1997). These include the enormous problems of inter-island travel. Distance education, therefore, will become increasingly relevant in meeting the needs of the noncampus territories. We, in small states, need to be mindful of any limitations, and take advantage of our many positive aspects. Creativity and a high literacy rate in the Caribbean are among those advantages.

Discussion: the Outcome and the Potential

The web page was done in-house by the librarians, who keyed in and coded all the information and

links. This method of production, though it had its disadvantages, also provided exposure to skills for those who may not have attempted web page design before. This was viewed as a very positive aspect of the course. Further, since it is intended to be an ongoing course, we will be constantly reworking and improving the product, refining our skills as page designers, distance librarians and presenters.

The assessment tasks were due on August 4, 2000 and so, at the time of preparation of this report, the jury was still out as to how successful the MSL programme was. However, contact information for each librarian was given, with the assurance that queries will be answered promptly and help was available, yet not one student has so far requested any help. One can only assume that the transfer of information was indeed very clear.

Technological advances, through which the delivery of health information services to our users is effected, can, for our small states in the Caribbean, be utilized to great advantage. Small developing countries can level the playing field with regard to access to information because of ongoing communications and computer technology revolution (Warde, 1998). With continuing advances in information technology, the applications of computers in medicine are increasing rapidly. Computers open the door to an ever-expanding arena of knowledge and technology. This happens throughout a society and, therefore, practitioners are faced with a more enlightened clientele. Modern information technology not only affects the delivery of health care, but also significantly influences the doctor-patient relationship.

Conclusion and Recommendations

Appropriate use of a combination of print-based materials and a web-based classroom works well

for the provision of continuing education to health professionals. The new technologies led to enhanced efficiency in teaching, and enlarged the educational offer. We found that this was a practical and economical method of delivering information literacy. We used the simplest, least expensive technology, and found that even these methods had some valuable attributes. They can have the effect of reducing isolation in rural areas. Further, the flexibility of this mode augurs well for distance education in small states. We prepared physicians for a wider use of the Internet to support their future information needs. We created a learning environment that maximized interaction and developed information literacy. Initial student, faculty and staff reactions were generally positive. However, it is recommended that future developers of such a programme never underestimate the amount of time that is required to plan and execute it properly.

Our programme was able to demonstrate the value of informatics to support distance education. We seized that “teachable moment”, referred to as “that point in a learning experience when the learner is more receptive to accepting and using new information, accepting new attitudes, or learning new skills” (Leist and Kristofco, 1990).

And so one sees the library’s role in facilitating this training to the health sector as extremely important, not only for the success of the individual student, or the UWI programme, but also for loftier notions of effective, efficient, high-quality health care in the entire region.

Bibliography

Arnold, G. N. and Humphries, A. W. (1995). “Continuing Education and Health Sciences Libraries: Opportunities for Collaboration,” *Journal of Continuing Education in the Health Professions* 15, no. 2: 235–240.

De Four, L. C. (1997). “Initiating the First Steps: The Use of Technology to Provide Library Services to Distance Learners in the Commonwealth Caribbean,” in *Library Services to Distance Learners in the Commonwealth: A Reader*, edited by E. Watson and N. Jagannathan. Vancouver: Commonwealth of Learning.

Georgiev, G. (1996). “Proposal: Postgraduate Diploma Course in Primary Care and Family Health.” Public Health and Primary Care Unit, Faculty of Medical Sciences, the University of the West Indies, St. Augustine.

Greenidge, E. (1995). “Health Information Services for Caribbean Distance Learners,” in *Health Information for the Global Village: Proceedings of the 7th International Congress on Medical Librarianship*. Washington, D.C.: International Congress on Medical Librarianship.

Hosein, S. (1999). “Information Literacy: A Guide to Finding and Using Information for Lifelong Learning.” The University of the West Indies, St. Augustine.

Leist, J. C. and Kristofco, R. E. (1990). “The Changing Paradigm for a Continuing Medical Education: Impact of Information on the Teachable Moment,” *Bulletin of the Medical Library Association* 78, no. 2: 173–179.

Warde, C. (1998). “Communications and Information Technologies: Opportunities for Economic Development in the Caribbean,” in *Furthering Co-operation in Science and Technology for Caribbean Development. Proceedings of the 10th Anniversary Conference of the Caribbean Academy of Sciences (CAS)*, pp 187–195. Mt. Hope, Trinidad: Caribbean Academy of Sciences.

Watson, E. F. (1997). “Factors affecting the Provi-

sion of Library Services to Distance Learners: The Commonwealth Caribbean Experience,” in *Library Services to Distance Learners in the Commonwealth: A Reader*, pp. 231-239, edited by E. F. Watson and N. Jagannathan. Vancouver: Commonwealth of Learning.