



Inter-Library Loan Service in the Kingdom of Saudi Arabia: A Case Study of Medical Libraries

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ABSTRACT

The last 20 years have seen a marked increase in co-operation among Saudi medical libraries, with inter-library loan service at the forefront. This is an investigation of the current situation of co-operative inter-lending and resource sharing among medical libraries in the Kingdom of Saudi Arabia. The study discusses various methods for providing inter-library loan service including direct inter-lending, lending through union catalogs, and centralized lending. Other resource sharing activities are also described. The case study methodology was employed. Documents, interviews, and personal conversations were utilized to provide needed information. A number of medical libraries were chosen, and their inter-library loan requests for the year 1995 were thoroughly investigated. Results are analyzed, and some concluding remarks for future action are presented.

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INTRODUCTION

With new discoveries and technologies being made available to the medical profession on an almost daily basis, medical literature has been hard pressed to keep pace. It is currently estimated that the world publishes in excess of 100 000 scientific journals. Almost one quarter of these journals deal, in one way or another, with medical, biomedical, or health sciences issues. In a relatively recent study of the number of journals received by the US National Library of Medicine (NLM) and the number of registered physicians in the United States, it was found that there was a constant ratio

of about 17 journals per 1000 physicians, and that this ratio had not changed over a 30-year period.¹ This is significant in view of the fact that the number of physicians has risen dramatically during the period in question. The rapid proliferation of such highly specialized literature has presented medical libraries with a myriad of problems including storage and safe-guarding, bibliographic control, and proper dissemination. However, procurement was, and still remains, the most pressing problem, particularly that of journal subscriptions.

It is a huge task, if not an impossible one, to acquire all, or even most, of the available medical literature. No library, even the richest and most advanced, can obtain the vast numbers of journals, books, reports, proceedings, papers, etc., that are being produced to satisfy the reading and research needs of the medical community. These materials are being published, day in and day out, at dizzying speeds and in various forms, shapes, and languages. Simply put, the acquisition of all, or most, of today's medical literature is beyond the means of any existing library. Such an undertaking requires a "dream" budget, a huge manpower force, and a storage space "out of this world"!

Facing these realities, medical libraries have tried to strengthen their limited resources through aggressive participation in various forms of inter-library loan service. The majority of such efforts have been successful, so much so that co-operative inter-lending and resource sharing have become an integral part of the inner workings of most medical libraries. Reflecting on the state of medical librarianship and its attempts at forging closer ties between member libraries, Cheshier was quite outspoken in his praise of hospital libraries for their determined efforts in sharing their resources. He emphasized that he knows "of no professional group which is making greater strides toward professional respect and all the prerequisites that implies".² Cheshier was also of the opinion that medical librarians "have a great contribution to make to the evolution of commonality and the safeguarding of individual uniqueness".³

According to Matheson, of the Association of American Medical Colleges, the health sciences library is a major resource in any academic medical center. Together with other major resources, such libraries make "possible the flow of information through which quality health education, research, and patient care are achieved".⁴ Expounding on the future of these libraries, Matheson wisely intimated that "Libraries have been

¹ Lock, S. (1989) "Journalology": Are the quotes needed? *CBE Views* 12(4), p. 57.

² Cheshier, R.G. (1981) The limits of the comprehensible: Reflections on medical librarianship. *Bulletin of the Medical Library Association* 69(4), pp. 377-381.

³ Ibid.

⁴ Matheson, N.W. (1981) A study of the Health Sciences Library: Its roles in education for the health sciences. *Bulletin of the Medical Library Association* 69(3), pp. 307-310.

the traditional interface system between the scholarly record and the information user; as the environment for information handling changes, so will the mission and roles of libraries change".⁵

Like other countries, the Kingdom of Saudi Arabia has not escaped the flood of medical information nor its impact on the local library scene. Saudi medical libraries have been under the same pressures being felt by similar libraries world-wide. The reading and research needs of the country's medical and health sciences establishment have increased steadily during the last 20 years or so. To cope with this insatiable demand for newly-published information, local medical libraries have tried to re-evaluate their policies and procedures, re-access and re-designate budgets earmarked for acquisition, and explore ways and means of optimizing the use of journal literature, conference proceedings, reports, and other materials of interest to the medical and health sciences community in Saudi Arabia.

As can be expected, an important result of these efforts has been a dramatic surge of interest in co-operation. Saudi medical libraries have found themselves with no alternative but to try to overcome their differences and to consolidate their limited means through inter-lending and resource sharing. The trend towards increased inter-library co-operation manifests itself in two basic forms. The first can be seen in the few but growing number of joint co-operative inter-lending ventures being worked out among Saudi medical libraries themselves. The second takes the form of bibliographic search and document delivery agreements being concluded slowly, but steadily, between Saudi libraries and large providers of medical information outside the Kingdom. Such efforts, in both forms, have been quite beneficial to the Saudi medical and health sciences community, and have enhanced the position and prestige of medical libraries and librarians throughout the country.

BACKGROUND

Writing on models for inter-library lending, Arms explained that the various methods of providing an inter-library loan service include direct inter-lending, inter-lending through union catalogs, and centralized lending. He was also of the opinion that these methods can be compared by estimating the cost per loan, average service time, and failure rate. Such a formula could provide a simple model of the cost effectiveness of alternative systems, which can be used to predict the effects of changes in the level of demand or funds available.⁶ Costs and formulae aside, however, Saudi medical

⁵ Ibid.

⁶ Arms, W.Y. 1979) Models for interlibrary lending. *Interlending Review* 7(4), pp. 130-136.

libraries seem to have experimented with Arms' three methods for inter-library lending. This was necessitated, and still is, by the three-pronged problem of exploding demand for health sciences information, dwindling monetary resources, and spiraling costs of research materials, particularly journal subscriptions.

Relatively easy to comprehend and implement, direct inter-lending, also known as direct approach from one library to another, seems to have been the method of choice of most Saudi libraries, medical or otherwise, when providing an inter-library loan service for the first time. This has been the case with a number of university medical libraries which have had the opportunity to enter into some form of resource sharing. The same can be said of the libraries found in large private and government-funded public hospitals. It also applies to the majority of libraries at various military medical facilities which were constructed on a wide scale from the early 1970s onward.⁷ In a recent study of administrative and technical services at 12 hospital libraries in the capital city of Riyadh, all were found to have facilities for some form of direct local inter-lending. Six libraries, or 50% of the sample, had the means to provide their readers with international bibliographic search and document delivery services.⁸

Despite the relative simplicity and apparent attractions of direct inter-lending, libraries have tended to explore other methods when convinced of improved service to their clientele. Reasons given for such a move often include: (1) reducing acquisition costs, especially periodical subscriptions; (2) achieving better and faster access to journal literature; (3) providing a larger pool of titles for the benefit of all libraries involved; (4) reducing possible duplication of titles; (5) minimizing dependence on foreign inter-lending by filling more requests locally; (6) stabilizing, and possibly reducing, costs of search and document delivery services; and (7) relieving some of the burden on larger libraries, and promoting the active involvement of smaller ones; thus attaining a more equitable distribution of responsibility among participating libraries. These were among the reasons which prompted Gallimore and his colleagues, at a group of Veterans Administration Medical Center Libraries in California and Nevada, to develop a co-operative concept called the "holder of record" system.

As envisioned by its designers, the "holder of record" system is based on a contractual agreement of responsibility for the maintenance of a journal file

⁷ Brown, P. L. & Blucker, D. (1987) Interlibrary cooperation in the Kingdom of Saudi Arabia: The holder-of-record system. *Bulletin of the Medical Library Association* 75(4), pp. 323-325. It is evident that prior to the issuance of union lists of journal holdings and the inauguration of the "holder of record" system in 1982, MODA's hospital libraries were engaged in direct inter-lending in order to fill some of their inter-library loan requests.

⁸ Al-Ogla, S. (1998) A study of hospital and medical libraries in Riyadh, Kingdom of Saudi Arabia. *Bulletin of the Medical Library Association* 86(1), p. 61.

by participating libraries. Following its implementation, those libraries were able to free resources for expansion of their journal holdings and to achieve a more even distribution of responsibility for co-operative inter-lending among themselves. They also became more adept at tackling the twin problems of spiraling subscription costs for health sciences journals and increasing charges for inter-library loan services. Upon further development of the system, co-operative relationships between participating libraries advanced further in the area of journal management, particularly selection, retention, binding, discarding, borrowing, and lending.⁹ The successful implementation of the "holder of record" system has prompted its adoption by many groups of small and medium-sized medical libraries in and outside the USA. Such a group was formed in Saudi Arabia in the early 1980s.

Responding to its medical librarians' needs for more complete journal holdings and their fears of continued heavy reliance on foreign sources for bibliographic search and document delivery services, the Saudi Arabian Ministry of Defense and Aviation (MODA) permitted its hospital libraries to implement a "holder of record" system, on the pattern pioneered by Gallimore and his colleagues. All of MODA's major hospital libraries, six in number at the time (see Appendix A), have since joined the system which was inaugurated in May 1982. Besides assuring more complete medical journal holdings within the Kingdom, the adoption of the new system made it possible for participating libraries to reduce their reliance on foreign inter-lending by almost 70%. It has also paved the way for increased co-operation in the areas of information storage and retrieval, procurement of new journal titles, and a more even distribution of inter-lending responsibilities.¹⁰

To be sure, the issuance of lists or union lists of periodical holdings lies at the heart of the "holder of record" system and similar co-operative concepts. The compilation of these lists by participating libraries is the basis for what is known as inter-lending through union catalogs. Describing the development of their system, Gallimore and Martin wrote

"In order to provide a sound basis for the system, a new union list of journals was compiled. . . Within a year another union list of journals was compiled and placed in each of the libraries for inter-library loan purposes. . . Updates to this holder of record union list have subsequently been issued on a quarterly basis, and a complete new list produced each year."¹¹

Besides being the traditional means by which libraries make their holdings known to others, thus facilitating resource sharing, these lists

⁹ Gallimore, C.R. & Martin, R.R. (1980) Holder of record: A cooperative health sciences journal system in a hospital library network. *Bulletin of the Medical Library Association* 68(3), pp. 271-273.

¹⁰ Brown & Blucker (1987) *op. cit.*, pp. 323-325.

¹¹ Gallimore & Martin (1980) *op. cit.*, p. 272.

are equally important in strengthening bibliographic control, collection development, and access to serials holdings, including databases and networks.¹²

Saudi libraries have also been involved in the compilation of union lists of periodicals. A quick glance at Sliney's article reveals a relatively large number of journal and serial holding lists issued by various medical facilities in Saudi Arabia as well as in other countries belonging to the Gulf Cooperation Council (GCC).¹³ Indeed, the last 20 years or so have witnessed the publication of periodical lists by almost all types of Saudi libraries. One of the earliest was the *Union List of Arabic Periodicals at Riyadh University Libraries* which was published in 1977. In 1981, the same university, now called King Saud University (KSU), issued its first list of non-Arabic journals. Entitled *KSU Union List of Periodicals: Non-Arabic*, it was supplemented annually through to 1984 when the whole project was abandoned.¹⁴ KSU undertook a partial revival of its Union List of Periodicals in 1993 when it started issuing separate journal lists based on subjects of major disciplines, particularly the sciences. As of 1997, the list of KSU's medical journal holdings is in its fifth edition. It is hoped that a more inclusive list, similar to the original one, can be compiled soon. KSU has the largest library in the Kingdom. It had a collection of over 1 million volumes and almost 12000 periodical subscriptions when its non-Arabic journal list met its demise in 1984.¹⁵

Like KSU, the majority of libraries attached to various types of institutions of higher education have issued, at one time or another, complete or partial lists of their periodical holdings. This also applies to King Fahd National library (KFNL), as well as to most special libraries and a few large public ones. It should be noted, however, that many of these lists have suffered fates not too different from that of KSU's first list of non-Arabic journals. This could be attributed to several factors including: (1) limited understanding of the role such lists play in facilitating co-operative inter-lending and resource sharing; (2) the overall fragmented nature of the inter-library loan service in Saudi Arabia; and (3) apathy and general lack of support on the part of individuals and institutions alike. The compilation of periodical lists is an undertaking which requires knowledge.

¹² Al-Hamidi, A.R.A. 1995. Development of union list of periodicals and its role in resource sharing. Presented at the Arabian Gulf Chapter/Special Libraries Association Conference on *Strengthening Resource Sharing in Libraries and Information Centers in the Arabian Gulf Region*. United Arab Emirates University, Al Ain. March 15-17 1995, pp. 1-2.

¹³ Sliney, M. 1991. Medical information in the Kingdom of Saudi Arabia: The case for library co-operation. *Health Information and Libraries* 2(3), pp. 140-153.

¹⁴ *Union List of Arabic Periodicals at Riyadh University Libraries*. 1977. Riyadh: Riyadh University Library. *KSU Union List of Periodicals: Non-Arabic*. 1981-1984. Riyadh: King Saud University Library.

¹⁵ Tameem, J.A. 1988. Academic libraries in the Kingdom of Saudi Arabia. *International Library Review* 20(4), pp. 477-485.

understanding, and appreciation of the importance of such tools. The prompt and continued provision of this kind of service also demands money, expertise, and dedication. Unfortunately, the lack of one or more of these parameters has driven many Saudi periodical lists, as well as those of books and other information sources, into either obsolescence or oblivion.

Medical libraries in Saudi Arabia are also familiar with the concept of centralized lending, the third method for providing inter-library loan service. Indeed, Saudi librarians, medical and otherwise, would enthusiastically welcome the implementation of a centralized lending facility on the pattern of DOCLINE. An automated inter-library loan request routing system, DOCLINE was developed by the US National Library of Medicine (NLM) to improve document delivery service by routing loan requests quickly and efficiently throughout the network of participating libraries.¹⁶ Saudi libraries would also welcome the participation in a co-operative document delivery service based on something similar to the inter-library loan forms developed by ALA. Employing the software program, DataPhile, the Bursak Biomedical Library at Mayo Clinic Jacksonville, Florida, was able to obtain a high rate of document delivery through the use of ALA requests. The library also reported the delivery of 484 articles via DOCLINE during 1993.¹⁷ Undoubtedly, such services have advanced the cause of co-operative inter-lending and resource sharing among American medical libraries. Although similar systems are presently non-existent in Saudi Arabia, the country does have the infrastructure necessary for the future development of nation-wide centralized lending facilities.

The closest thing to centralized lending in Saudi Arabia can be observed through the inter-library loan activities of a few institutions, all of which are located in the capital city of Riyadh. The first is King Abdulaziz City for Science and Technology (KACST). Founded in 1978 as the country's premier center for promoting research in science and technology, KACST provides, among other services, an on-line access to all its national databases through its own network, KACSTNET, as well as through a more encompassing service called Gulf Network or GULFNET. Inaugurated in 1985, GULFNET is available to a considerable number of libraries and research centers throughout Saudi Arabia, as well as to any interested institution within the GCC countries. In 1983, KACST started compiling the *Union List of Periodicals* (ULP). An on-line periodical list, the ULP serves as a central depository of bibliographic and location information

¹⁶ *DOCLINE Manual*, 1989. Bethesda, Maryland: National Library of Medicine.

¹⁷ Farrell, A. 1995. Using a fax modem to request ALA interlibrary loans. *Journal of Interlibrary Loan, Document Delivery, and Information Supply* 5(4), pp. 37-41.

17.6% share. Taken by institutions, and excluding university hospitals, figures show private and general hospitals to be among the biggest beneficiaries of KACST's search and document delivery service, with a 15.8% share of all submitted inter-library loan requests.²² In all, there is little doubt that KACST's active involvement in co-operative inter-lending has brought it closer to being the *de facto* Saudi clearing house for regional and international lending, as well as the base for any future nation-wide centralized lending service.

The second institution to provide some form of centralized lending is King Saud University College of Medicine Library (KSUCML). The oldest and largest medical library in the country, KSUCML has developed a strong collection of books, periodicals, and audio-visual materials, including thousands of rare X-rays. Its current journal subscription exceeds 500 titles, with most back issues available in print or microform. As the National Focal Point (NFP) of the World Health Organization (WHO) in Saudi Arabia, KSUCML has been actively involved in inter-lending.²³ Availing itself of an extensive collection, and able to search through MEDLINE and hard copies of Index Medicus and Current Contents-Clinical Medicine, KSUCML has been successful in filling many inter-library loan requests. In addition to hundreds of search requests submitted personally by resident physicians and medical students, figures for the year 1996 show 194 and 48 search requests were received from Saudi and GCC libraries, respectively. Each request usually contains from 1 to 10 or more citations. It is estimated that about 80% of all requests received are filled. KSUCML accepts search requests in person as well as through mail, fax, and phone. Requested materials are photocopied and given in person or sent to readers by mail.²⁴

Other libraries practicing centralized lending include King Fahd National Library (KFNL) and King Faisal Specialist Hospital and Research Center Library (KFSHRCL). Since opening in 1990, KFNL has tried to play an active role in co-operative inter-lending. It provides a strong search and document delivery service, particularly of its own collection. It can also intercede on behalf of its readers to borrow items from other Saudi libraries. Requests are made in person or sent by mail. Service is available to researchers, libraries, and government agencies. KFNL bears all costs

²² *Annual Report (1417/1418-1997/1998)*. Riyadh. King Abdulaziz City for Science and Technology, Directorate of Information Services.

²³ *Role and function of medical library of the King Saud University as a National Focal Point of W.H.O.* (unpubl report). Riyadh: King Saud University, College of Medicine Library (KSUCML), p. 15.

²⁴ Data is based on informal talks with librarian as well as on unpublished figures compiled by KSUCML. Inter-lending activities are also mentioned in the *Annual Report: 1416/1417 H.* (1996) Riyadh. King Saud University, Deanship of Libraries, p. 55.

involved in the searching, photocopying, and dispatching of requested materials.²⁵ With one of the largest medical journal subscriptions in the country, King Faisal Specialist Hospital and Research Center Library (KFSHRCL) is considered an information powerhouse, particularly in the fields of treatment and research espoused by the hospital. The library also has Internet access to MEDLINE, CINAHL, HEALTH STAR, and CANCERLIT.²⁶ Inter-library loan requests are accepted by mail or fax, and photocopies are usually dispatched by mail. The library has an arrangement with BLDSC to deliver requests that cannot be filled locally. Because of the nature of its specialized collection, however, KFSHRCL has developed close inter-lending ties with a rather limited number of Saudi medical libraries.

In addition to their direct involvement in co-operative inter-lending, Saudi libraries' interest in promoting resource sharing is evident in other ways as well. The last 15 years or so have witnessed a growing body of literature on the subject.²⁷ The issue has also been raised repeatedly in official meetings of leading library administrators, resulting in some positive actions. Examples include the first, second, and third annual meetings of Deans of Library Affairs of Saudi Universities.²⁸ The 1992 meeting of GCC university library deans and directors, held at Sultan Qaboos University (SQU), in Muscat, Oman, was primarily preoccupied with the writing of a charter to facilitate co-operative inter-lending among GCC academic libraries.²⁹ The Institute of Public Administration initiated three meetings in 1993 in an effort to develop a plan for inter-library loan service among large libraries in the capital city of Riyadh. King Fahd National Library (KFNL) and King Abdulaziz Public Library (KAPL) were among the major participants.³⁰

The subject of resource sharing has also been high on the agenda of several scientific gatherings. Hosted by KSU in 1980, the First Conference of Saudi Librarians dwelt on the issue and its ramifications to the local library scene. A year later, a second conference was held in Riyadh under the

²⁵ Al-Salem, S.M. (1996) *King Fahd National Library: A study of its services within the national information context of the Kingdom of Saudi Arabia* (Arabic text). Riyadh. King Fahd National Library.

²⁶ *Directory of GCC Medical and Health Care Libraries*. Muscat, Sultanate of Oman, Sultan Qaboos University, Medical Library, (1994), p. 17.

²⁷ Seeda, A.S. (1993). *Contributions of Saudi authors in the field of libraries and information* (Arabic text). Riyadh. King Fahd National Library, pp. 44, 52–53, 56.

²⁸ Al-Anani, S. (1987) Interlibrary lending among university libraries with an investigation of this activity among university libraries in the Kingdom of Saudi Arabia (Arabic text). *Maktabat Al-Idarah* 14(3), pp. 141–142, 147.

²⁹ Abdulhadi, M.F. (1992) Report: Fourth meeting of deans and administrators of GCC university libraries (Arabic text). *Arab Journal for Librarianship & Information Science* 12(4), pp. 150–155.

³⁰ Al-Huzaimi, S.A. (1994) *Interlibrary loan services among modern libraries* (Arabic text). Riyadh. King Fahd National Library, pp. 85–86.

auspices of the Arab Bureau of Education for the Gulf States.³¹ This conference discussed the possibility of establishing a charter for inter-library loan service among university libraries in the Gulf region; thus laying the groundwork for the 1992 meeting in Muscat, Oman. The subject was raised again in 1982 during a conference hosted by King Fahd University of Petroleum and Minerals (KFUPM), in Dhahran.³² In 1988, King Abdulaziz Public Library held a 3-day meeting in Riyadh. Called "Conference on Inter-library Lending and the Utilization of Information Sources Among Saudi Libraries and Information Centers," this gathering provided a needed forum for a frank and realistic exchange of views surrounding inter-library loan services in the country.³³ One of the latest is the 1995 conference sponsored by the Arabian Gulf Chapter of the Special Libraries Association. Hosted by the United Arab Emirates University, the central theme of that conference was "Strengthening Resource Sharing in Libraries and Information Centers in the Arabian Gulf Region."³⁴

Saudi medical libraries have also had their share of such meetings. Among the earliest were the ones held in 1981 and 1982 by MODA's hospital libraries and led to their adoption of the "holder of record" system.³⁵ In 1992, King Saud University College of Medicine (Abha Branch) called for a meeting whose central theme was "Cooperation and Coordination Among Medical Libraries in the Kingdom of Saudi Arabia."³⁶ This meeting was hosted by King Fahd National Guard Hospital (KFNGH), in Riyadh, and was attended by a number of medical librarians, particularly from regional hospitals. A second meeting was held a year later at King Khalid National Guard Hospital (KKNHG), in Jeddah. Both meetings were attended by some physicians who had the opportunity to express their views as users of medical information. Among the issues discussed were: (1) promoting inter-library loan service among Saudi medical libraries, (2) implementing resource sharing agreements to advance medical research, (3) strengthening journal and microform holdings, and (4) facilitating the compilation of union lists of medical periodicals.

³¹ Al-Anani (1987) *op. cit.*, pp. 139-140.

³² *Conference on the use of new technologies in library work: Extent of library problems in the Arab Gulf countries* (Arabic text) (1992). *Alam Al-Kutub* 3 2, pp. 302-303.

³³ *Conference on interlibrary lending and the utilization of information sources among Saudi libraries and information centers* (Arabic text) (1988) *Alam Al-Kutub* 9(3), pp. 359.

³⁴ *Abstracts of the 1995 Arabian Gulf Chapter Annual Meeting, AGC/SLA Conference on strengthening resource sharing in libraries and information centers in the Arabian Gulf region* (1995). Al-Ain, United Arab Emirates. UAE University, 1995 March 15-17.

³⁵ Brown & Blucker (1987) *op. cit.*, pp. 323-324.

³⁶ *Report of medical libraries first meeting held at King Fahd National Hospital in Riyadh, 1412H./1992*. Jeddah: King Abdulaziz University, College of Medicine and Allied Sciences, p. 1.

The last point, compiling periodical lists, was among the topics most discussed. Even the attending physicians, who had no prior knowledge of basic reference work, were acutely aware of the importance of issuing and updating such lists. In fact, this subject was almost the only one to receive unanimous endorsement. Conferees viewed it as a top priority problem and called for joint efforts to find appropriate solutions. This heightened interest in compiling periodical lists seems to have born fruit shortly thereafter. Located in the city of Jeddah, seven hospital libraries (see Appendix B) co-ordinated their efforts to compile a union list of their journal holdings. Entitled *Saudi Medical Libraries Club Periodical Holdings* (SMLCPH), this list was first issued in 1994. An updated edition is being prepared for publication.³⁷ A more comprehensive list, entitled *GCC Medical Libraries Periodical Holdings* (GCC MLPH), was also issued in 1994. Published by Sultan Qaboos University College of Medicine Medical Library (SQUCMML), in Muscat, Oman, this union list contained the journal holdings of 18 medical libraries, 10 of which are located in Saudi Arabia (see Appendix C).³⁸

It should be noted that SQUCMML was also involved in the publication of another important reference work. Entitled *Directory of GCC Medical and Health Care Libraries*, this small guide was first issued in 1993. The second edition was published a year later and contained brief but invaluable information concerning 40 GCC medical and health sciences libraries. Of those covered, 17 are located in Saudi Arabia. Besides giving basic information on each library, the directory provides some very useful information for co-operative resource sharing including: (1) type of holdings (books, audio-visuals, journal subscriptions, back volumes, etc.), (2) inter-library lending policies (lend books and/or documents; accept requests by fax, mail, or phone; send copies by fax or mail; etc.), (3) willingness to participate in the GCC MLPH, (4) association with international lending libraries (BLDSC, NLM, BMA, RSM, etc.), (5) automation systems in use (DOBIS/LIBIS, INMAGIC, ULTRAPLUS, etc.) and (6) database access and network affiliation (MEDLINE, CINAHL, SEDBASE, etc.).³⁹

³⁷ The *Saudi Medical Libraries Club Periodical Holdings* (SMLCPH) was first published in 1994. It contains the journal holdings of seven medical libraries, referred to in this study as Jeddah Hospital Libraries or JHL. A new edition was earmarked for publication in 1998. King Khalid National Guard Hospital Library (KKNGL) was taking responsibility for issuing the new edition as it did with the first one.

³⁸ Bhatti, M.A. & Ellis, I.S. (1995) Resource sharing & interlibrary loan services in the GCC medical libraries. Presented at the Arabian Gulf Chapter/Special Libraries Association Conference on Strengthening resource sharing in libraries and information centers in the Arabian Gulf region. United Arab Emirates University, Al Ain, 1995 March 15-17, pp. 4-6.

³⁹ *Directory of GCC medical and health care libraries* (see note 26).

This has been a brief overview of co-operative inter-lending and resource sharing among Saudi medical libraries. Inter-library loan services are usually initiated, implemented, and supported for the basic reason of supplementing the resources of a library, if and when such resources become unable to satisfy the information needs of its readers. This argument is doubly valid at a time of exploding medical literature, spiraling costs of journal subscriptions, and declining monetary resources. Being unable to achieve self-sufficiency, particularly in periodical holdings, a growing number of Saudi medical libraries are espousing some form or another of inter-library loan service. Different methods of inter-lending are being tried. Lists and union lists of journal holdings are being compiled, meetings and conferences are being held, and new ideas and visions are being presented all the time. Sliney was right on the target when she observed that "Much co-operation takes place between libraries in Saudi Arabia and within the Middle East. But, much of this is informal rather than organized."⁴⁰

METHODOLOGY

The need for co-operative inter-lending and resource sharing is well recognized by almost all Saudi medical libraries. Increased co-operation in the area of inter-library loan service can be seen in the growing number of Saudi medical libraries committing themselves to various resource sharing plans. An important parameter of such activities is the processing of inter-library loan requests. This is an investigation of the requests processed during the year 1995 by a case study population consisting of several Saudi medical libraries. Areas analyzed include: (1) number of incoming and outgoing requests, (2) inter-lending services between some of the case study population and other Saudi medical libraries, (3) journal collections held by case study population, (4) processing of inter-library loan requests, and (5) number of requests delivered by international libraries.

The case study methodology is employed as an effective vehicle for accomplishing the aims and objectives of this investigation. As a research method, the case study attempts to examine the status and development of one or more individuals or institutions. Data is derived from a multitude of sources including interviews, conversations, documents, and records of all types. Collected information is thoroughly analyzed, and attempts are then made to ascertain the facts in order to draw inferences and establish general principles.⁴¹ As such, case studies fall under the umbrella of what is known

⁴⁰ Sliney (1991) *op. cit.*, p. 145.

⁴¹ Hillway, T. (1956) *Introduction to research*. Boston. Houghton Mifflin Company, pp. 238-245.

as "action research," one of three major types of research in the social sciences. The other two are basic and applied research. According to Hernon,

"Librarians often conduct action research and generate data to which they can apply judgments. In other words, they produce data useful for local decision making concerning library programs, collections, services, operations, staffing, and so forth."⁴²

This case study consists of a population of seven Saudi medical libraries (see appendix B). Selection of these libraries was based on several factors, including: (1) they represent several types of hospital libraries, (2) their general make-up is fairly similar to other large Saudi medical libraries, (3) they belong to hospitals known for their interest in medical research, (4) they are involved in co-operative inter-lending and resource sharing, (5) they have relatively large collections of journals and other research materials, and (6) they were involved in compiling the 1994 SMLCPII. Visits were made to all of them as well as to other libraries. Detailed information was obtained through interviews and informal contacts. Data was also collected from published and unpublished records. The majority of librarians were frank and forthcoming. Some were very helpful and even eager to show relevant documents. Others were less enthusiastic and somewhat reserved. No problems of consequence were encountered.

ANALYSIS OF DATA

This investigation covers a case study population of seven medical libraries located in Jeddah, the second largest city in the Kingdom of Saudi Arabia. For the purpose of this study, these libraries are henceforth referred to as Jeddah Hospital Libraries or JHL. They include:

- (1) Three public hospital libraries:
 - King Fahd General Hospital Library (KFGHL).
 - King Abdulaziz Hospital Library (KAHL).
 - Maternity & Children's Hospital Library (MCHL).
- (2) Two military hospital libraries:
 - King Khalid National Guard Hospital Library (KKNGL).
 - King Fahd Armed Forces Hospital Library (KFAFHL).
- (3) One university hospital library:
 - King Abdulaziz University Faculty of Medicine Library (KAUFML).

⁴² Hernon, P. (1989) *Statistics for library decision making*. Norwood, New Jersey. Ablex Publishing Corporation, p. 2.

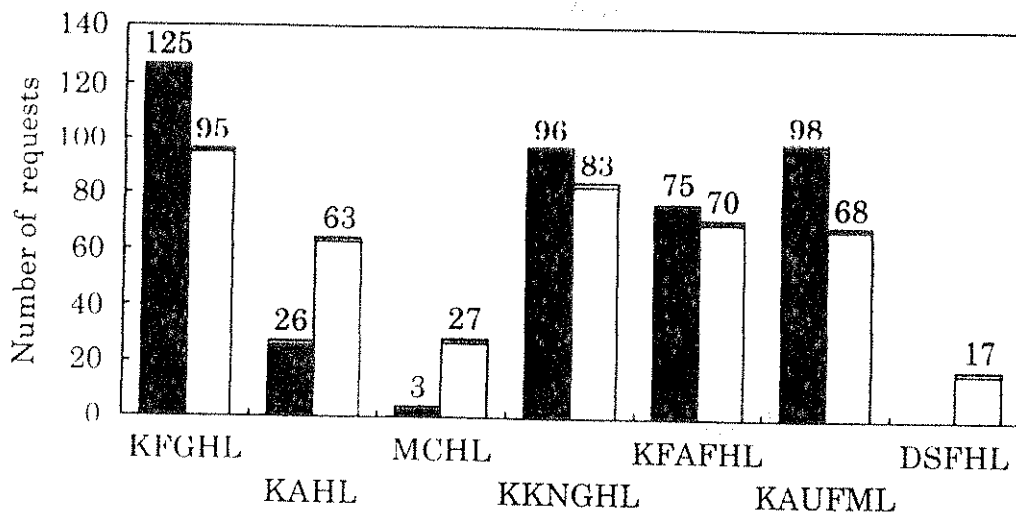


FIGURE 1. Inter-library loan services among Jeddah Hospital Libraries. ■, incoming requests; □, outgoing requests.

(4) One private hospital library:

- Doctor Sulaiman Fakeeh Hospital Library (DSFHL).

The following is an analysis of data obtained. Fig. 1 shows incoming and outgoing inter-library loan requests among JHL. With 125 and 95 received and sent requests, respectively, KFGHL leads the other libraries in inter-library loan service. This is not surprising since KFGH is one of the largest medical facilities in Jeddah. Though government funded, its library receives enough support to maintain a relatively strong collection of journals and other research materials. Despite this fact, however, the library seems unable to provide its readers with all of their information needs. This is reflected in the dichotomous situation of having the highest incoming requests, a flattering proposition, while being the library with the most outgoing requests, a not so flattering situation.

The least active of Jeddah Hospital Libraries is DSFHL, with 0 and 17, incoming and outgoing requests, respectively. This is not unusual for a private hospital library. Although several Saudi private hospitals have libraries, these libraries tend to be small and their collections and services are quite limited. As such, they are often the beneficiaries and not the benefactors of inter-library loan service. Equally interesting is MCHL, with 3 and 27, received and sent requests, respectively. The low numbers can be attributed to the fact that MCH is a relatively small medical facility with specialized services concentrating on maternity and pediatrics. It should be noted that similar hospitals are found in most Saudi cities. Their libraries are often under-funded and, thus, lacking in collections, services, and personnel. Like those of private hospitals, these libraries are rarely

considered equal partners in the distribution of responsibilities usually associated with co-operative inter-lending.

Numbers belonging to the military hospital libraries, KKNHGL and KFAFHL, are also interesting when analyzed. Both libraries seem to be actively involved in resource sharing. The two are the third and fourth highest recipients of incoming requests, with 96 and 75, respectively. They are also the second and third highest in outgoing requests, with 83 and 70, respectively. These numbers are not surprising. Indeed, a weaker showing would have been disturbing. It is general knowledge that military medical libraries are in the forefront of Saudi inter-library loan service. Some of their activities have been discussed in the course of this study. Also not surprising are the incoming and outgoing requests of KAUFML. Being the main library of King Abdulaziz University Faculty of Medicine, KAUFML is well provided for. The library has a respectable teaching and research collection, second only to that of KSUCML. Receiving 98 incoming requests, the highest number after that of KFGHL, does seem to affirm the general belief in the strength of its collection.

Fig. 2 illustrates the volume of inter-library loan service between four of Jeddah Hospital Libraries and other Saudi libraries listed in the *GCC Medical Libraries Periodical Holdings* (GCC MLPH) (see Appendix C). With 180 and 130 incoming and outgoing requests, respectively, KFAFHL leads the other three libraries in co-operative inter-lending. This could be attributed to the fact that 40% of Saudi libraries listed in the GCC MLPH belong to military hospitals. The relatively close association and co-ordination between such libraries in the area of inter-library loan service is well known. The same could be said for KAUFML, which came out second, with 160

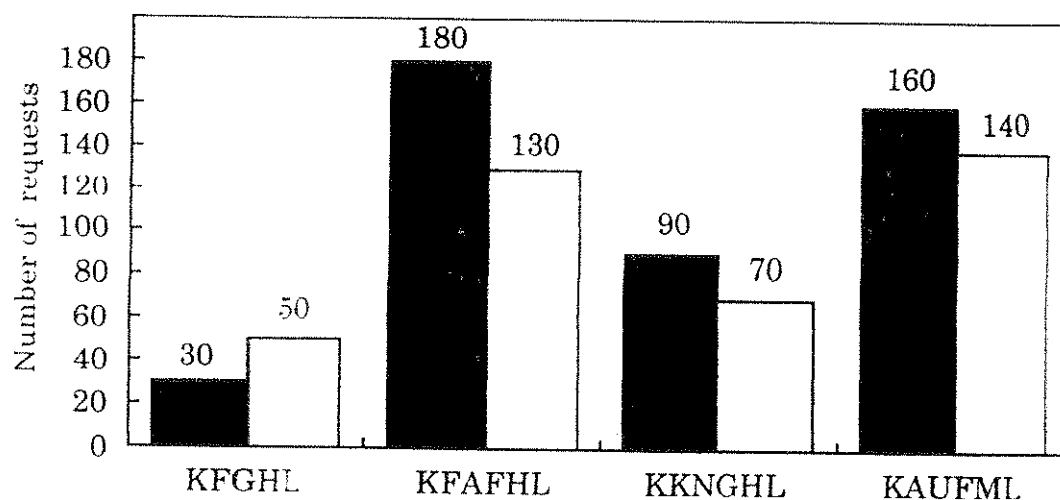


FIGURE 2. Inter-library loan services between four of Jeddah Hospital Libraries and Saudi libraries listed in the *GCC Medical Libraries Periodical Holdings*. ■, incoming requests; □, outgoing requests.

and 140 incoming and outgoing requests, respectively. In this case, however, the association factor applies to libraries belonging to university-teaching medical facilities. Four out of the 10 Saudi medical libraries listed in the GCC MLPH belong to universities.

On the other hand, being the only Saudi general hospital library listed in the GCC MLPH, may have contributed to KFGHL's dramatic decline from first place, in Fig. 1, to last place, in Fig. 2. The association, or disassociation, factor is something that cannot be dismissed easily. Comparing inter-library loan requests in both figures, one finds that the two military hospitals, KFAFHL and KKNGL, have handled together 38.3% and 55.3% of all incoming and outgoing requests in Figs. 1 and 2, respectively; a relatively strong showing. Equally interesting is the large number (390) of outgoing requests which were sent by the four JHL to other Saudi medical libraries listed in the GCC MLPH. This situation is indicative of at least two things. Firstly, although the four are among the largest medical libraries in Jeddah, their collections are far from self sufficient. Secondly, reaching out to other Saudi medical libraries illustrates a growing commitment to co-operative inter-lending as well as a sense of confidence that such requests could be filled locally.

Fig. 3 represents JHL's journal holdings for the year 1995. The seven libraries had a total journal subscription of 1066 titles. Of these, 631 titles, or 59.2%, were in duplicates of two or more copies. The rest, 435 titles, or 40.8%, were in single copies. The large number of duplicates is a matter of grave concern. This is particularly true in view of the spiraling subscription costs of medical and health sciences journals. Equally important are the

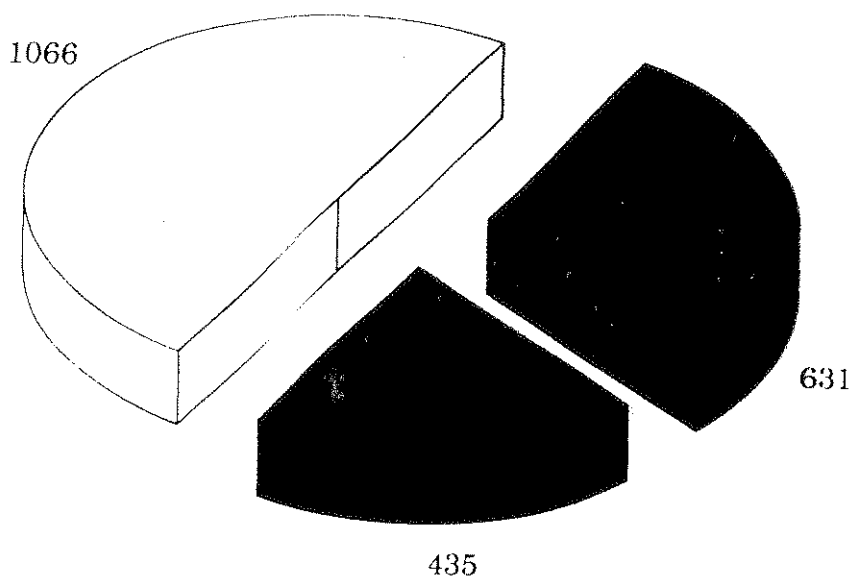


FIGURE 3. Number of journals held by Jeddah Hospital Libraries. □, complete collection; ■, duplicate copies; ▨, single copies.

costs involved in maintaining and housing several collections which, in essence, serve the same purpose. The truly sad thing, however, is that all the libraries involved are located in the same city, and within short distance of each other. To be sure, their co-operation in compiling the SMLCPII has probably brought them closer to one another. A more substantive step would be their participation in a co-operative inter-lending plan on the pattern of the "holder of record" system or some other successful concept. In addition to other benefits, the adoption of such a scheme can reduce duplication of titles wherever possible and, thus, effect savings in subscription costs as well as in the total amount of space required to house duplicated journal collections.

Fig. 4 indicates the percentage of filled and unfilled inter-library loan requests by JHL. It also shows various methods used in processing those requests. Jeddah Hospital Libraries were able to fill the majority (75%) of all incoming requests. This indicates the relative strength of their collections, particularly those libraries involved in high resource sharing activities. However, a quarter of all incoming requests remained unfilled. Reasons given for failure to fill more requests include: (1) items are unavailable, missing, or stolen, (2) requested materials are being repaired or in a state of disrepair, (3) items cannot be filled because of copyright restrictions or some

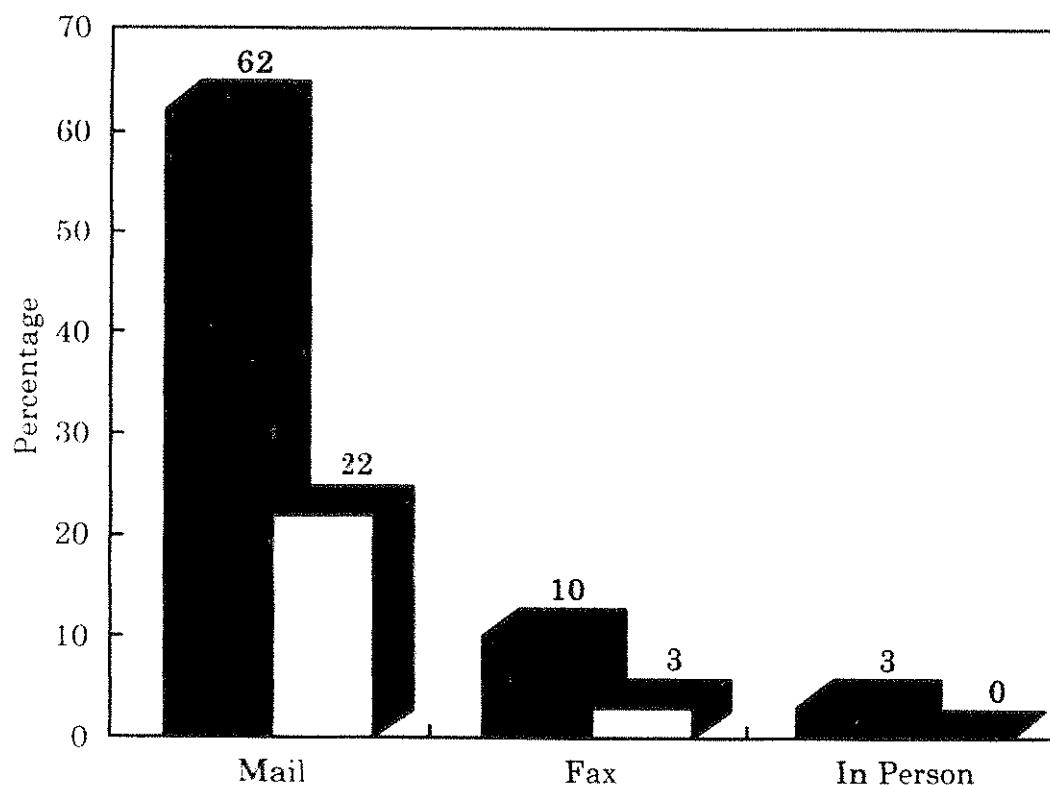


FIGURE 4. Processing of inter-library loan requests. ■, filled requests; □, unfilled requests.

other obstacle, (4) too many requests arrive at the same time, (5) needed personnel are in short supply, and (6) allocated funds are temporarily withheld or unavailable.

Jeddah Hospital Libraries employ three basic methods for processing inter-library loan requests. The majority of requests (84%) are sent or received through the mail. Sixty-two percent of all filled items are delivered by this means in the form of actual documents and photocopies of requested articles. Fax is the second (13%) favorite method for receiving filled and unfilled requests. It is also utilized occasionally to dispatch short articles within the city limits of Jeddah. Readers are also encouraged to place their requests and pick up materials in person. About 3% of all filled requests are delivered through this method. Receiving requests by phone was either not permitted or rarely used to be of any significance.

Fig. 5 represents the number of inter-library loan requests delivered by international libraries. With 52 requests, or 56.5% of the total, the US National Library of Medicine (NLM) is JHL's number one partner in international resource sharing. The British Lending Library and Document Supply Center (BLDSC) comes second with 28 delivered requests, or 30.4% of the total. Twelve requests, or 13%, were filled by other foreign libraries. Although each request may consist of several citations, it is evident that the total number of documents requested through foreign inter-lending remains quite low. As can be expected, the primary reason is the high cost of obtaining such documents. On average, the cost of receiving a photocopy of an article from the USA or the UK is somewhere between \$30 and \$40. Such high rates, which keep climbing, are not conducive to the growth of inter-library loan service between Saudi and foreign libraries,

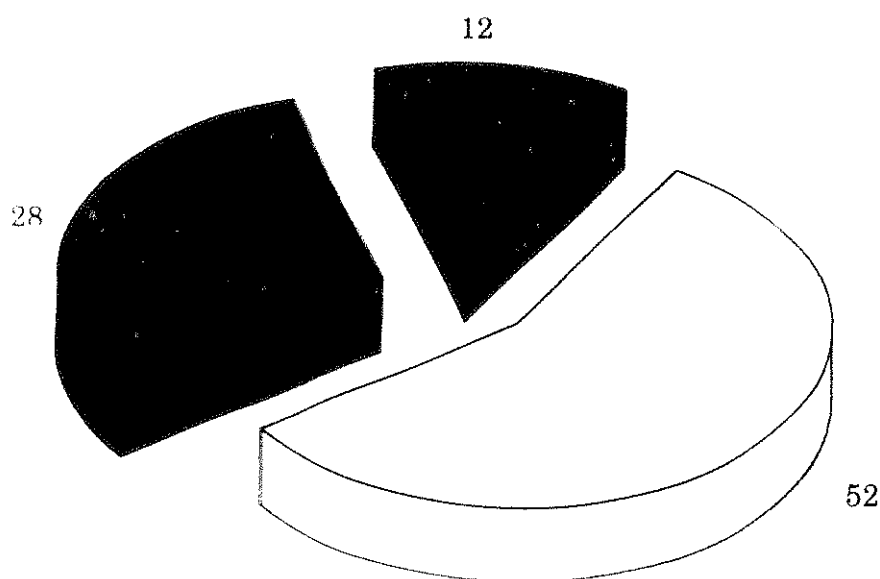


FIGURE 5. Number of requests delivered by international libraries. □, NLM (USA); ■, BLDSC (UK); ■, other libraries.

medical or otherwise. Despite this fact, however, most medical libraries in Saudi Arabia, as well as the GCC countries, depend on foreign inter-lending to fill some of their requests. The majority of such requests are delivered by BLDS and NLM. Materials are occasionally obtained from other sources, including the British Medical Association and the Cleveland Health Sciences Libraries Consortium.

CONCLUSION AND THOUGHTS FOR ACTION

Saudi Arabia's health sector has seen tremendous improvements during the last few decades. Medical facilities of different types and sizes have been built. Spurred by growing demands for health sciences information, libraries were established. Lacking in resources needed to satisfy the reading and research requirements of their users, these libraries found the answer in inter-library loan services. Such activities were pursued as a solution to the problem of making more information more accessible. The dramatic surge of interest in resource sharing by Saudi medical libraries is reflected in their growing involvement in various forms of co-operative inter-lending, be it direct, centralized, or through union catalogs. Their experiences in this field have placed them in the forefront of the nation's library co-operation scene. This study has attempted to investigate, discuss, and highlight some of the most pressing issues surrounding this topic. The following are some concluding remarks and thoughts for future action.

International search and document delivery services have become a vitally important part of the information chain. The relatively large numbers of inter-library loan requests placed through foreign libraries warrant a more forceful Saudi presence in various forums concerned with improving and streamlining such activities. The high costs of document delivery represent a barrier to international co-operation in the area of inter-library loan service. Steps should be taken to reduce, or at least stabilize, the costs involved in filling requests by foreign libraries. Saudi medical and other libraries should support alternative methods of payment if real savings can be effected. Lower costs may also be reached through joint agreements between, say, several medical libraries, on the one hand, and large information providers such as BLDS and NLM, on the other. The participants can also call upon the services of KSUCMI, as a National Focal Point (NFP), and those of KACST, to facilitate the implementation of such agreements.

Saudi medical libraries should also become familiar with the latest scanning, storage, and transmission technology in readiness for the launch of full-scale electronic document delivery services. At the present time, the majority of filled requests are delivered through the mail. Though generally

effective, this method is costly and time consuming. Also, there is always the possibility of documents being lost, damaged, or misplaced. With telephone rates steadily coming down, libraries should encourage the transmission of requests by fax and phone. The services of fax machines can be enlisted to transmit a larger volume of photocopied articles, especially between libraries located within the same geographical area. Physicians should be able to access current medical information wherever they are. This study envisions a nation-wide system by which every Saudi hospital and medical center is equipped with an "information workstation." Manned by one or two competent librarians, and with on-line access to an all-encompassing centralized search and document delivery facility, each workstation could become a "virtual library" capable of searching databases, processing inter-library loan requests, and delivering documents in paper and digitized forms, quickly and efficiently.

The future for Saudi medical libraries lies in their being linked more closely to each other. Co-ordination and co-operation are absolute imperatives. To satisfy the information needs of their users, and to prepare for the eventual implementation of electronic transmission of documents, these libraries should take the initiative in establishing a joint automated inter-library loan request routing system. The adoption of a service on the pattern of DOCLINE or the request forms developed by ALA could be quite beneficial. They can also learn from other experiences including the GMRMLN, which was implemented in the early 1980s by the Greater Midwest Regional Medical Library Network in the USA,⁴³ or INTER-LOAN, a microcomputer-based inter-library loan system developed by King Fahd University of Petroleum and Minerals Library (KFUPML).⁴⁴

The last few years have witnessed tremendous improvements in the quality of services provided by local, regional, and global networking. Libraries used to employ networks to cut down the cost of technical processing, but lately, resource sharing has become the prime purpose for joining them. Saudi medical and other libraries should be more involved in new networking technologies. It is widely accepted that GCC libraries, including those in Saudi Arabia, have not utilized the full potentials of GULFNET. If fully exploited, GULFNET could become a powerful and cost effective tool for the provision of some basic resource sharing services including e-mail, CD-ROM databases, and storage and retrieval of various forms of information. Medical libraries should also join the Internet to create Web sites with

⁴³ Hammell, K.A. (1984) Regional online union catalog of the Greater Midwest Regional Medical Library Network: Development and operation. *Bulletin of the Medical Library Association* 72(2), pp. 155-161.

⁴⁴ Siddiqui, M.A. (1992) Interloan: A microcomputer-based interlibrary loan system. *Microcomputers for Information Management* 9(1), pp. 47-55.

full-text information covering specialized guides, directories, union lists of journal holdings, pointers to certain resources, and other services. The world-wide outreach of the Internet is truly impressive. Almost all the GCC countries are presently connected. Librarians are fascinated by the Internet's capability to access transnational resources and, thus, promote regional and international co-operative inter-lending.

Medical libraries must work hard on improving the quality and quantity of their reading and research collections, especially journal subscriptions. Every possible effort should be made to reduce duplication of titles, especially among libraries located near each other. The duplication problem is one that will not go away easily. Its basic roots lie in the lack of co-ordination in present acquisitions policies as well as those of the 1960s and 1970s when GCC countries were awash of funds, and journals were subscribed to by the thousands. Medical libraries should also try to fill the gaps in their periodical collections, as well as minimize the missing of issues through improved delivery methods from publishers and the training of staff in better periodicals management. Libraries, medical and otherwise, must give considerable attention to the compilation of lists and union lists of journal holdings. Successful inter-library loan service is attained and maintained only through the issuance and constant updating of such lists.

Hospital libraries are facing a world-wide problem of dwindling resources, exploding medical literature, and spiraling costs of reading and research materials. The problem is increasing rather than decreasing. The answer lies in greater co-operation, especially in the area of resource sharing. The "holder of record" system, and similar co-operative inter-lending concepts, should be examined carefully by Saudi medical libraries. Much useful information could be learned from past and present experiences. The implementation of a good resource sharing system can provide effective means to streamline journal holdings, reduce duplication of titles, attain savings in subscription costs, minimize dependence on foreign inter-lending, and substantially improve all aspects of inter-library loan service. Other ideas and suggestions should also be seriously considered. Sliney's proposals for local and regional cooperation among Saudi and GCC medical libraries is one example.⁴⁵ Equally beneficial are the occasional gathering of minds. Meetings and conferences on co-operative inter-lending and resource sharing ought to be held more often. Libraries should invite interested physicians and other members of the medical community. Their input and continued support must be actively pursued.

Military hospital libraries are in the forefront of Saudi inter-library loan service. This trend should be encouraged and strengthened still further.

⁴⁵Sliney, M. (1990) Sliney wrote another thought-provoking article entitled, Arabia Deserta: The development of libraries in the Middle East. *Library Association Record* 92(12), pp. 912-914.

They have the collections and the means necessary to play a leading role in local and regional resource sharing. The fact that they are scattered throughout the Kingdom provides them with greater leverage in the overall picture of co-operative inter-lending. Libraries belonging to colleges of medicine and university hospitals should be more active in the area of resource sharing. They ought to have closer and stronger ties to each other. Even with the limited funds available to them, much can be done to streamline their collections and services. Special attention should also be paid to strengthening the resources of libraries attached to private and government-funded hospitals. They must play a more active role in the country's inter-library loan picture. By sheer number and diversity of location, these libraries could, one day, bring medical resource sharing to every Saudi town and village.

Saudi medical libraries should convince authorities that the availability of information is a high priority in the overall national provision of health services. They are also responsible for making them aware of the long-term negative consequences of inadequate funding, imposed bureaucratic policies and procedures, and the weakening of collections, particularly in the area of journal subscriptions. Libraries ought to be more forthcoming in sharing resources, services, experiences, and research activities with each other within the Kingdom, as well as with GCC and other medical libraries in the region. Priority should be given to employing competent and qualified librarians to store, process, and disseminate health sciences information. Saudi schools of library and information science should pay more attention to medical librarianship in their curricula. Training and continuing education must be recognized as a vital element in improving medical library services, including that of resource sharing. To be truly effective, such efforts are to concentrate on enhancing the librarians' skills by words and deeds alike.

All in all, the last two decades have witnessed a significant increase in inter-library loan services among Saudi libraries. A good portion of such activities have been pursued informally and, thus, remain dependent on the whim, motivation, and goodwill of individual libraries and librarians. No one can dispute the fact that much has been accomplished, and within a relatively short period of time. However, much of the journey still lies ahead, and more efforts are needed to effect greater gains. It is hoped that this study has achieved its goal of presenting an overview of co-operative inter-lending and resource sharing among Saudi medical libraries. The authors also hope that more studies will be undertaken to further our knowledge of the progress of inter-library loan services in Saudi Arabia as well as in other GCC countries. Such investigations could yield important data needed for accurate planning of future services.

APPENDIX A

List of MODA's Hospitals whose Libraries Adopted the "Holder of Record" System in 1981/1982⁴⁶

- (1) Jeddah Armed Forces Hospital, Jeddah.
- (2) Khamis Mushayt Military Hospital, Khamis Mushayt.
- (3) Tabuk Military Hospital, Tabuk.
- (4) Riyadh-Al Kharj Military Hospital, Riyadh-Al Kharj.
- (5) Dhahran King Abdulaziz Airbase Hospital, Dhahran.
- (6) Taif Al Hada Military Hospital, Taif.

APPENDIX B

List of Case Study Population, Referred to as Jeddah Hospital Libraries or JHL. In 1994, these libraries participated in compiling the Saudi Medical Libraries Club Periodical Holdings (SMLCPH)

- (1) King Fahd General Hospital Library (KFGHL).
- (2) King Abdulaziz Hospital Library (KAHL).
- (3) Maternity & Children's Hospital Library (MCHL).
- (4) King Khalid National Guard Hospital Library (KKNGL).
- (5) King Fahd Armed Forces Hospital Library (KFAFHL).
- (6) King Abdulaziz University Faculty of Medicine Library (KAUFML).
- (7) Doctor Sulaiman Fakeeh Hospital Library (DSFHL).

APPENDIX C

Saudi Medical Libraries which were Listed in the 1994 GCC Medical Libraries Periodical Holdings (GCCMLPH)

- (1) King Fahd General Hospital (KFGH), Jeddah.
- (2) King Fahd Armed Forces Hospital (KFAF), Jeddah.

⁴⁶ Brown & Blucker (1987) op. cit., p. 324.

- (3) King Khalid National Guard Hospital Library (KKNHGL), Jeddah.
- (4) King Abdulaziz University Faculty of Medicine Library (KAUFML), Jeddah.
- (5) King Fahd National Guard Hospital Library (KFNGHL), Riyadh.
- (6) King Faisal Specialist Hospital and Research Center Library (KFSHRCL), Riyadh.
- (7) King Saud University College of Medicine Library (KSUCML), Riyadh.
- (8) King Faisal University College of Medicine Library (KFUCML), Dammam.
- (9) King Fahd Military Medical Complex Medical Library (KFMMCML), Dhahran.
- (10) King Fahd University Hospital Library (KFUHL), Al-Khobar.