


A Study to Examine the Level of Usage and Awareness of National Library of Medicine Classification (NLMC) System in Health/Medical Libraries in Sri Lanka and Factors Associated in Adopting it.

M.P.P. Dilhani¹, Shirani Ranasinghe²

Abstract

The National Library of Medicine classification system is a library classification system which covers the field of medicine and preclinical sciences. It is recognized as a standard classification system which can be used in Health and Medical libraries all over the world. Since it is specially designed for the field of health sciences, most of the health libraries in other countries have adopted it for classifying books. However, not many Sri Lankan Health and Medical libraries have adopted this system yet. The present study examined the prevailing situation of NLMC regarding the usage and awareness, factors affecting the usage, training/ education received by Health librarians on National Library of Medicine classification, and problems faced in implementing it. Objective of this study was to investigate the level of usage of National Library of Medicine classification among Sri Lankan Health and Medical libraries and to find out the factors associated in adopting it. Also, it was aimed to find out the present classification system/s and possibilities for future alterations. The participants of this study were all the Librarians in-charge of Health and Medical Libraries in Sri Lanka who are the members of the HELLIS Network, Sri Lanka. A descriptive survey was conducted for data collection. As data collection instruments, questionnaire and interviews were used after relevant literature review. The study revealed that a majority of Sri Lankan Health and Medical libraries do not use NLMC for classification purposes. It was also found that National Library of Medicine classification is not popular among health and medical librarians in Sri Lanka due to unawareness, lack of training, influence of the mother institute, lack of policy etc. This study suggests that Library and Information Science education system in Sri Lanka has to pay

¹ Senior Assistant Librarian, Postgraduate Institute of Medicine, University of Colombo, Email: dilhani@pgim.cmb.ac.lk,  <https://orcid.org/0000-0002-8351-6568>

² Deputy Librarian, University of Sri Jayewardenepura, E-mail: [<shirani@sjp.ac.lk>](mailto:shirani@sjp.ac.lk)



This work is licensed under a Creative Commons Attribution-Share A like 4.0 International License

attention towards adopting this classification and Sri Lankan Health and Medical librarians should have training or awareness programs on National Library of Medicine classification in order to introduce this system to Health and Medical libraries.

Keywords: Health and medical libraries, Library classification systems, National Library of Medicine Classification system, Sri Lanka

Introduction

The National Library of Medicine Classification (NLMC) system is a library classification system covers the field of medicine and preclinical basic sciences. NLMC contains a clear division between preclinical and clinical topics and it contains a highly enumerative structure and support mnemonics (Parker, 2007). As indicated in the National Library of Medicine website and cited by Giustini (2014) the genesis of the NLMC was a survey of the Army Medical Library, published in 1944. The survey recommended the ‘Army Medical Library be reclassified according to a modern scheme’ and that new scheme with a mixed notation (letters and numbers) resembling that of the Library of Congress. Based on a committee consisting of K.D. Metcalf and some consultants, Mary Louis Marshall compiled a draft of schedules and a preliminary edition was issued in 1948. Frank B. Rogers revised it and published it as the NLMC in 1951. Later on NLMC was developed. In 2002 an online edition was released. Since the 2006 edition, it is also available in PDF format. Further, a poster format was appeared in 2005 (National Library of Medicine, 2017).

Structure of the NLMC

The NLMC covers the field of health and medical sciences. It uses alphabetical letters to represent broad subject categories and sub categories by numbers. Therefore, it is a classification scheme of integrated symbols with alphabetical letters and numerals which is similar to that of Library of Congress where broad subjects are identified by alphabetical letters and sub divisions by numbers. As indicated in the website of the National Library of Medicine, the NLMC uses QS-QZ and W-WZ of the schedule, which were permanently omitted from the Library of Congress classification schedules. The LC schedules for Human Anatomy (QM), Microbiology (QR) and Medicine (R) are not used by the National Library of Medicine since they overlap with the NLMC (2016) It is a hierarchical classification system. The headings for the individual schedules are indicated in concise form (e.g., WE - Musculoskeletal System; WG - Cardiovascular System) and are then described broadly with the systems, organs or with related fields. Also there is a provision to indicate the type of the material. Each main schedule, consists of numbers from 1-49 which can be used to denote items by the type of publication such as reports, manuals, dictionaries etc. Depending on the year of publication different schedules can be used. The main schedules QS-

QZ, W-WY, and WZ (excluding WZ 220-270) are used to classify publications after 1913. The 19th century schedule is used for publications during 1801-1913 and WZ 220-270 is used for publications before 1801. Geographic subdivision can be used with Table G notations. Thus, the NLMC call number usually consists of the following elements; classification number, Cutter number, year of publication, Table G number (geographic divisions) volume or issue number, supplement number and year of supplement.

Advantages of NLMC System

- Can be accessed online through NLM website in either PDF or html format.
- Updated annually and hence provides space for new subject fields and disciplines.
- Since it provides a distinction between clinical and preclinical sciences it is easy to use.
- Bibliographic data for items are provided through OCLC – Online Computer Library Center and WorldCat and hence it saves the time of the librarian.
- Since NLMC numbers are short it is easy and simple.
- It is suitable for any kind of health libraries (small or large or of any specialized collection).
- No subject knowledge is necessary.

Many hospital libraries and medical libraries all over the world use the NLMC system because this classification is specially tailored for biomedical literature. As an annually updated, well organized classification system it covers the main subjects of medical and health related books. Though most of the health and medical libraries in other countries use the NLMC for classifying books, it seems that Sri Lankan Medical and Health libraries have not yet adopted this system. For Medical and Health librarians it is important to be aware of the related practices and procedures in other countries. No study has been carried out in Sri Lanka about the NLMC or its practices. This study will fill the gap and would be helpful in incorporating the resources of other medical and health libraries worldwide.

Research Objectives

The main objective was to examine the level of usage and awareness of the National Library of Medicine Classification (NLMC) system in Health and Medical Libraries in Sri Lanka and factors associated in adopting it. The specific objectives were to:

- i. Investigate the present classification systems used in Health and Medical Libraries in Sri Lanka
- ii. Study the level of awareness and training received regarding NLMC by Health and Medical librarians
- iii. Find out whether factors such as type of the library, size of the collection and subject diversity, type of the mother institute and library policies affect the usage of the classification system.
- iv. Identify problems and possibilities for future alterations.

Literature Review

Only a few studies have been found in relation to the use of NLMC in Health Libraries in Asian countries though there were some studies conducted in other regions. Further, very limited literature can be found in recent years. Unfortunately, no literature was found in this regard in Sri Lanka.

Ullah, Ameenb, and Bakhtarc (2011) have conducted a study on professional activities, needed competencies and training needs of medical librarians in Pakistan. They have used 20 medical librarians with Masters Degrees as the sample. Researchers have found that only two respondents use the National Library of Medicine (NLM) classification scheme for classification of library materials and all others were using the Dewey Decimal Classification scheme.

Womack (2006) had studied about the classification systems used in academic health libraries in Boston. According to the findings of this study, majority of libraries have used the NLMC scheme. The study revealed that 42.5% use the NLMC exclusively while some libraries use it in addition to one or more systems. It further stated that the additional system is used for a part of collection, such as government documents or audiovisual materials.

This study indicated that majority of medical libraries use the NLMC system because it is the most detailed and appropriate system for a medical collection and provides the best coverage for the subject.

Scheerer and Hines (1974) have studied about the classification systems of 941 medical libraries in several countries including USA, Canada, Britain etc. According to them, generally accepted classifications in medical libraries were (based on the date of origin), the Dewey Decimal Classification- 1876 (currently updated), Boston Medical Library Classification, 1879 (no longer updated), Library of Congress Classification, 1910 (currently updated), Cunningham classification, 1929 (no longer updated) and National Library of Medicine Classification, 1951 (currently updated). Though medical classification systems such as the Cunningham Classification system and the Boston Medical Classification system have been used over the years, most of the medical libraries have moved to the NLM due to a number of advantages. The factors mentioned by the medical librarians who had also switched from other classification schemes to the NLM Classification Systems were frequent updates, availability of cataloguing information through OCLC, availability of subject headings (Medical Subject Headings - MESH), ease of application, simplicity of notation, appropriateness for use in large and small libraries, correlation with the LC schedules and feasibility of converting from other systems.

Methodology

A Survey method was employed as the research methodology. The population of this study consisted of all the Librarians in-charge of Health and Medical Libraries in Sri Lanka who are the members of the HELLIS Network Sri Lanka. The total membership of HELLIS as at 01/08/2016 was 27 which included academic, special, governmental as well as non-governmental libraries. World Health Organization Library was included into the sample as the sponsoring institute of the HELLIS Network Sri Lanka. The whole population was considered as the sample. The sample consisted of 15 academic libraries, 05 special/research libraries, 06 government libraries and 01 non- governmental libraries.

Questionnaire and interviews were used as data collection instruments. A questionnaire with open ended questions was administered to the Librarians

included in the sample. Further, interviews (over the phone) were conducted in order to get clarifications about some questions. The questionnaire and the interviews were focused on getting data to fulfill the objectives.

The questionnaire consisted of four major parts: basic and demographic data, present usage of classification systems, factors affecting the usage and problems and their willingness for future applications. The variables considered in the study were gender, professional qualifications and experience of the library professional in-charge of the library, awareness and training received by health and medical librarians, type of the library, present classification system used, diversity of subject areas and size of the collection, type of mother institute, library policy and willingness to change.

Results and Discussion

Demographic Details

Response rate of the study was 89%. According to demographic data, 22% of respondents were male librarians and 78% were females. Figure 1 shows the year of working experience of respondents. According to the results it shows that a majority of the respondents have between 16 -20 years of working experience and 70 % of the respondents possess experience of more than 10 years.

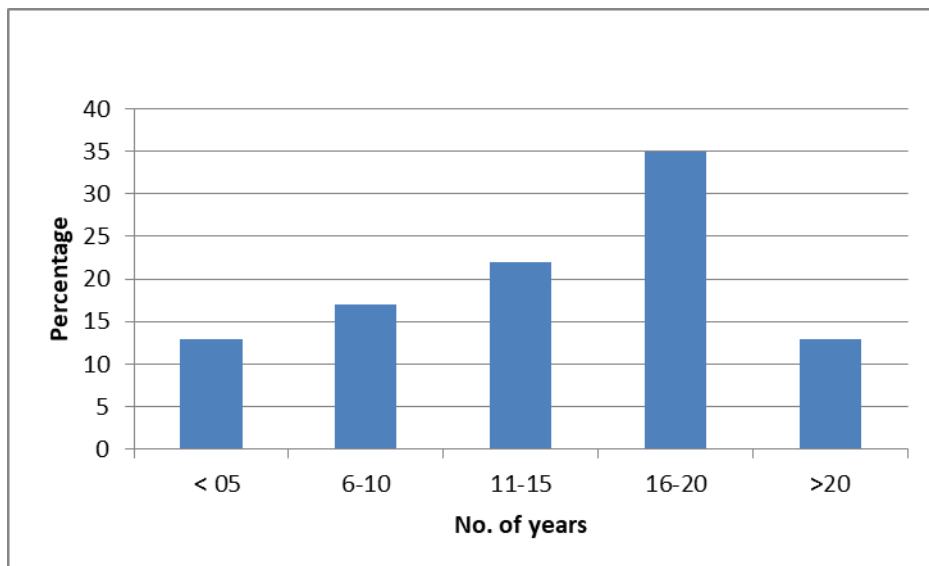


Figure 1. Working experience of the respondents

Seventy four percent (74%) of the respondents had obtained postgraduate qualifications that is Masters Degree related to Library and Information Science (MA-Master of Arts, MSSc-Master of Social Sciences, MLS-Master of Library Science and MIM-Master of Information Management) while others are Diploma holders in the field of Library and Information Science.

Classification System/s Used in Responded Libraries

Collection of almost all the libraries consisted of medical and health related books. Further, 15% of the collection include allied health books such as nursing, pharmacology and medical laboratory sciences. Another 5% consisted of the books mainly related to environmental science, drugs etc. Size of the collection varied from 2700 to 34,000. Fifty two percent (52%) of the responded libraries contain more than 10,000 volumes while 48% contain less than 10,000 books. Twenty three percent (23%) had less than 5000 books.

However, only 3 libraries in the sample out of 23 (13%) use the NLMC. As indicated by the respondents, a majority (52%) of health libraries use the DDC (Dewey Decimal Classification) while 35% of the responded libraries use the UDC (Universal Decimal Classification). Figure 2 illustrates the classification systems presently used by the respondents.

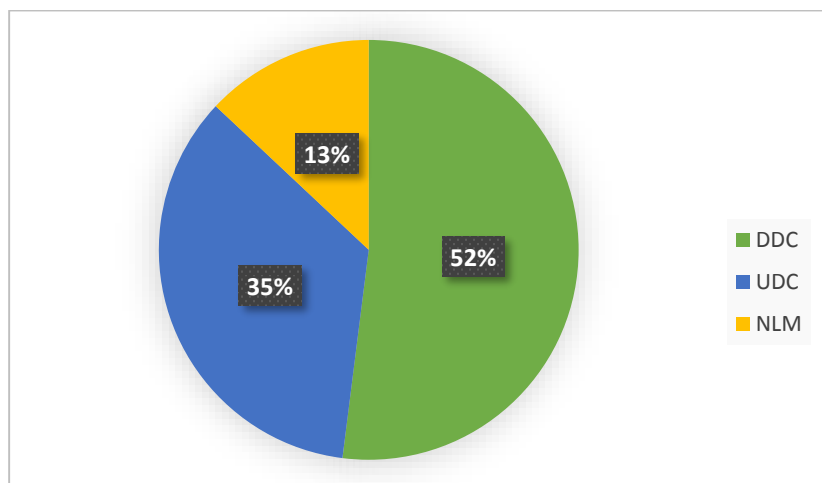


Figure 2. Present classification system

When considering the type of the library and classification systems used it was found that there were only 2 academic libraries (PGIM Colombo, PGIM Peradeniya) were using the NLMC. In addition, WHO library also uses it to classify health related books. The DDC system is used by a majority of academic libraries and all governmental and other libraries. The UDC is used by few academic and special libraries.

Respondents Awareness and Training Received Regarding the NLMC

It was found that 39% of respondents were not aware of the NLMC. Sixty one percent (61%) of the respondents have known about the existence and structure of the NLMC but have not used it. None of the medical librarians in the sample have learnt about the NLMC at the diploma/undergraduate/postgraduate levels in LIS education, whereas almost all the respondents have completed diploma or postgraduate studies in Library and Information Science.

No training has been obtained by any of the respondents on the NLMC. When asked for future applications only two librarians preferred to move for the NLMC in the near future. Others stated their difficulty in converting the existing system without any knowledge on NLMC and they preferred to continue with the existing system. All the respondents have expressed their willingness in getting a training on the NLMC or to learn about the NLMC.

Problems and Willingness for Future Applications

According to responses, 78% had stated that they experience difficulties in assigning accurate numbers with present classification systems. Gaps in some subjects such as family medicine, evidence based medicine etc. and distribution of some subjects in different places and additions from tables comprising long numbers (sometimes around 7-10) and lack of subject knowledge were among these difficulties indicated by the respondents.

All academic libraries responded are branch libraries except two institutional libraries. They have stated that they follow the library policies of the main libraries and should follow the same classification system to maintain the uniformity. Other categories of libraries included in the sample also stated that they use classification systems such as the DDC and the UDC because

these are the common and existing classification systems in other libraries in the country and it is easy to share data with these systems.

Most of the respondents (74%) stated that they have no future plans of introducing the NLMC in their libraries or change the existing classification system. Three percent (3.0%) have stated that it is better to introduce it while continuing the existing system. Most of the respondents felt that it is difficult to deviate from the existing system since they do not have the proper knowledge or training and also due to the fact that a majority of libraries in Sri Lanka are using either the DDC or the UDC, which would cause problems in sharing data.

Conclusion

Based on the results it can be concluded that though the NLMC is specifically designed for Biomedical literature and used by Health and Medical Libraries all over the world, it is not adopted by a majority of Sri Lankan Health and Medical libraries. According to the findings, it seems that neither the type of the library, nor the size of the collection affect the classification system used. It seems that though a majority of librarians possess more than 10 years of experience still they have not learnt or are not aware of the NLM classification system. Lack of awareness about the NLMC and reluctance to get involved in it were the main factors associated with the non-adoption of the system. Influence of the mother institute, policies of mother institute, fear of facing difficulties in sharing data and maintaining uniformity and lack of popularity of the system within the country were the other factors which affect this situation.

The present study suggests that awareness of the NLMC among Health Librarians should be developed. Since most of the librarians in Health and medical libraries are not subject specialists it would be easier to use the NLMC. The HELLIS Network can play a major role in providing training on NLMC. Though all the respondents have either a Diploma or Postgraduate degrees in LIS it seems that there is a gap in knowledge about such specialized classification schemes. Therefore, this study suggests that LIS education system in Sri Lanka has to pay attention to include the NLMC in its curricula. It is suggested that feasibility studies should be conducted

before making decisions on converting the existing systems used by Health and Medical libraries to NLMC.

References

Giustini, D. (2014). A workshop on the NLM Classification scheme: for the International Society of Knowledge Organization Student Group, SLAIS. Retrieved from <https://www.slideshare.net/giustinid/national-library-of-medicine-classification-nlmc>

National Library of Medicine Classification. (2016). Bethesda, Maryland, National Library of Medicine. Retrieved from <https://www.nlm.nih.gov/class/>

National Library of Medicine, Source Fact Sheet. (2016). Retrieved from <http://www.nlm.nih.gov/pubs/factsheets/nlmclassif.html>

Parker, J. A. (2007). National Library of Medicine classification system and medical subject headings. Retrieved from http://www.slideshare.net/gosha/lis417nlmmesh?next_slideshow=1

Scheerer, G. & Hines, L. E., (1974) Classification systems used in medical libraries. *Bulletin of Medical Library Association*. 62(3) 273-280

Sinn, S.K. (1991). The development of classification and subject heading systems for medicine. *Congress for Librarians*.39-55.

Ullaha, M., Ameenb, K. & Bakhtarc, S. (2011). Professional activities, needed competencies and training needs of medical librarians in Pakistan. *Education for Information* 28(2-4), 115–123.

Womack, K. R. (2006). Conformity for conformity's sake? The choice of a classification system and a subject heading system in academic health sciences libraries. *Catalogs & Classification Quarterly*, 42(1), 93-115.