Chapter 1
Introduction
CHAPTER - 1
INTRODUCTION

The objective of the present chapter is to highlight concept of Use of Periodical Literature, and citation analysis, to specify objectives, hypothesis, limitations, methodology and conspectus of the study.

1.1 Preamble

In the field of medical science in order to maintain high standards in medical education and research and in patient care, it is necessary for medical personnel to keep abreast of current developments in their field. Current information is an indispensable part of good teaching and research as well as good medical practice, since periodicals constitute the major channel through which current information is sought; greater emphasis is given to them in medical libraries. Consequently, the collection of the ‘average’ medical library will be roughly two third periodicals and one third books.

The Medical literature of the middle 20th century has become essentially a periodical and journal literature. Articles in periodicals and journals are now standard method of Announcing discoveries, new methods and even new hypothesis. The proliferation and variety of journals has been remarkable. Journals and periodicals are now dealing with highly specialized subjects and the rise and fall of research and clinical fashions can be traced in corresponding births, mutations and death of the journals.

The exponential rate of growth of periodicals is a part of the general information explosion. This situation has created the problems in acquisition of periodicals such as selection of periodicals, their constant rising cost, their organization and dissemination of information storage etc.

Before acquisition, programme of the periodicals is planned and implemented more information about use of periodicals must be obtained. This will help in better tackling the administrative problems involved in
periodical acquisition and their use. Moreover, it would provide reasons for low utilization of periodical literature and suggest guidelines for maximizing the use of library resources.

1.2 Proposed Research

In the context of Maharashtra, a number of medical colleges have been established and government is continuously supporting these institutions financially and otherwise. Consequently Medical college libraries have grown and are holding large collection and are involved in the generation of information services. In recent time while progress is seen these institutions are affected by a number of external forces i.e. social, economic, political, technological and internal variables for a change.

Medical colleges in Marathwada cannot be exception to this. Hence, medical college libraries in Marathwada were considered ideal for such a study as they cater to educational and research needs of the students and faculty members as well as cater the health care information needs of doctors, since all the colleges are attached to hospitals.

Moreover all these three Medical colleges, Government Medical College, Aurangabad, Mahatma Gandhi Mission Medical College, Aurangabad and Swami Ramanand Teerth Medical College, Ambejogai are located in Marathwada region it would be possible to use the results of the study, leading to rationalization and better management of periodicals.

No doubt the periodical and bound volume collection of these medical libraries is growing day by day. However only a growth of collection in size and quantity does not mean that library is rich in collection, it has to be judged with a view of maximum utilization of its collection and services rendered.

In such a situation it was felt that a comprehensive and detailed study of use of periodicals is required to judge the quality and depth of periodical
collection. In order to serve the users in medical field in Marathwada region. The attention was focused to measure the use of periodical literature deeply.

1.2.1 Statement of Research Title

Use studies include quantitative and qualitative techniques. For this purpose, several indicators have been developed and used. The most commonly used indicator is the number of citations. Besides this, journal ranking, author ranking, use of periodicals etc is studied. Present research focuses on the use of periodicals in medical libraries. Hence the present research “Use of Periodical Literature in Medical Libraries affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad” has been undertaken.

1.3 Explanation of concepts

1.3.1 Periodical

The term ‘periodical’ is interpreted as “a publication in a continuous series with a consecutive number and no predetermined end, as distinct from a single work in separate parts” (Concise Oxford dictionary, 1974).

Current awareness of “keeping up” is a necessary function of any well-informed individual, professional or layman. A serial defined” a publication issued in successive parts usually at regular intervals, and as a rule, intended to be continued indefinitely.”

Serial annual publications devoted to recent advances, progress series and other non-primary serial publications consisting of review articles are not treated as periodicals. Proceedings of organizations published regularly are treated as periodicals. (Kumar, 2004).

In this study the term periodicals and journals are used synonymously.
1.3.2 Periodical Literature

Periodical literature is considered as the backbone of any research collection. Particularly in science and technology fields where developments take place at a rapid speed. Periodicals are an important source for student, research worker, teachers and professionals.

The most frequently use of all sources of information are periodicals. Researcher will have to go through journals, serials, magazines, transactions, proceedings, and bulletins. They will have to go through weekly, monthly or quarterly periodicals. Their value cannot be over-estimated. They form the important part of fee specialist collection. The user gives more importance to periodicals rather than books in scientific and technological libraries. (Kumar and Kumar, 2005).

1.3.3 Medical Libraries

A health or medical library is designed to assist physicians, health professionals, students, patients, consumers and medical researchers in finding health and scientific information to improve, update, assess or evaluate health care. Medical libraries are typically found in hospitals, medical schools, private industry and in medical or health associations. A typical health or medical library has access to MEDLINE, a range of electronic resources, print and digital journal collections and print reference books. The influence of open access (OA) and free searching via Google and PubMed has a major impact on the way medical libraries operate. (Wikipedia, 2013).

1.3.4 Dr. Babasaheb Ambedkar Marathwada University

The State legislature passed the Marathwada University Act, 1958 to establish and incorporate a teaching and affiliating university at Aurangabad. The act received assent of the governor on May 5 and the university was inaugurated on August 23, 1958. From May 21, 1974 the university is governed by Act No.XXV of 1974 passed by the Marathwada legislature and Assented to by President of India. The University was renamed as Dr. Babasaheb Ambedkar Marathwada University In January 1994.(Official website, 2013)
1.4 Objectives of the study

The present study is an attempt to obtain records of user, act of use of periodicals. Specific the objectives of the present study are:

1. To determine the use of periodical and identify the periodical titles which are heavily used.
2. To identify the users of periodicals.
3. To find out (form-wise) the types of cited documents.
4. To find out the chronological distribution of the cited documents.
5. To find out the authorship pattern of cited document
6. To rank the cited journal.
7. To find out the language-wise distribution of cited documents.
8. To find out the geographical distribution of cited documents.
9. To find out the Indian and Foreign distribution of citations.
10. To rank the cited authors.

1.5 Hypothesis

Following were the hypothesis formulated for the study;

1) Medical science study and research in Marathwada is mainly based on periodical literature;
2) Small number of periodical titles account for the majority of use;
3) English language is predominant language;
4) Digital media has only limited impact on the medical science community; and
5) Foreign Periodicals are used more than Indian Periodicals.

1.6 Scope and Limitations

1. The subject coverage of the study is limited to the medical colleges offering education on the Allopathic system of medicine only. Colleges dealing with other systems of Medicine like Ayurvedic, Homeopathy, Unani are not considered for the study. Colleges offering specialization in branches of medicine like dental and nursing are also excluded for the
study. Thus only three medical colleges i.e. Government Medical College, Aurangabad, Mahatma Gandhi Mission Medical College and Swami Ramanand Teerth Medical College, Ambejogai are taken up for the study. Even the libraries attached to various departments of these colleges are not covered in the present study due to non-feasibility and non-accessibility. Thus only the central libraries attached to the respective institutions are studied.

2. The categories of users of these libraries were identified as undergraduate students preparing for their first degree, interns, post-graduate students, teaching staff, research workers, etc., but the present study included all the above categories as users except the first. i.e. undergraduate students. It is because that the use of periodicals by undergraduate students was very meager.

3. In this study the term ‘periodical’ is interpreted as a publication in a continuous series with a consecutive number and no predetermined and as distinct from a single work in separate parts. Periodicals and journals are used synonymously.

4. The study is based on citations given at the end of the dissertations of which the students has used for the preparation of the dissertations. The present study is based on 12348 citations appended at the end of 400 dissertations. The span of 10 years was taken into consideration from 2001 to 2010.

1.7 Population sample

The present study covers three medical college libraries affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. Two colleges are from Aurangabad city and the third is located in Ambejogai. It was assumed that more than 800 dissertations are submitted to the medical colleges affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangab, hence the subjects undertaken in the study. Only 400 dissertations were available for the study, and hence, 400 dissertations were considered for the present study.
Overall 450 Questionnaire were distributed and 370 Questionnaire were received back giving 82.22% response. The distribution of dissertation and survey covered under study is given in table no. 1.1.

<table>
<thead>
<tr>
<th>Colleges</th>
<th>Dissertations</th>
<th>Response received for survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Population</td>
<td>No. of Respondents</td>
</tr>
<tr>
<td>G.M.C.</td>
<td>160</td>
<td>200</td>
</tr>
<tr>
<td>S.R.T.</td>
<td>140</td>
<td>100</td>
</tr>
<tr>
<td>M.G.M.</td>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>TOTAL</td>
<td>400</td>
<td>450</td>
</tr>
</tbody>
</table>

1.8 Methodology

Present study was done with the help of survey method. “The survey method is one of the most effective and sensitive instruments of research … survey research can produce much needed knowledge.” (Kasyap, 1969).

The steps in the methodology include:

a) Data collection;
b) Data analysis and Interpretation.

1.8.1 Data collection

The bibliographical entries listed at the end of the 400 dissertations submitted to the Medical colleges were photocopied for further Analysis. While for other details the researcher prepared a structured questionnaire.

1.8.1.1 Design of Questionnaire:

The questionnaire (Appendix -I) consists of two sections mentioned as under.

The questionnaire consist of two sections, the questions asked in the first part were regarding use of library and library services and specific use of periodicals and guides to periodical literature. The question about
services were included in the questionnaire to find cut the awareness among the readers and also to know their reactions.

The second part of the questionnaire included supplementary data on periodical use. The use of periodicals on the day of survey provided actual data on the journal titles referred by the users and attests were also made to know the purpose of using periodicals and how users approach the periodical literature.

1.8.2 Data analysis and interpretation

Analysis of 9481 journal citations appended at the end of the 400 dissertations was done by using various parameters like to identify the core journals, to rank the cited author, to rank the cited journal, to find out chronological distribution of citation, to find out the geographical distribution of citations, to find out the types of cited document.

1.9 Summary of major conclusions & suggestions

1.9.1 Conclusions

1. Out of 12348 citations, it was found that the Journals are the major form of media used with citation count, of 9481 (76.78%) of total literature used, where as the Books is used in 879 (7.12%). Amongst citations of Dissertations 254 (2.06%) of citations, while the Internet 1207(9.77%), Report 352 (2.85%), Encyclopedia 175(4.42%). This indicates that, “Medical Science study and research in Marathwada is mainly based on periodical literature” (hypothesis no. 1) is valid and it also indicates that, “Digital media has only limited impact on the medical science community” (hypothesis no. 4) is valid.

2. The journals are most preferred publication used by the researchers in their study. The citations which are cited in various journals have been considered in the above table. “Lancet” scores the top position with 306 (3.23%) citations, second rank goes to “American Journal of Obstetrics and Gynaecology” with 301 (3.17%) citations, followed by “Journal of Obstetrics and Gynaecology” with 288 (3.04%) citations respectively.
3. The data was analyzed to test applicability of Bradford’s Law of scattering; the total numbers of 9481 Citations were divided into 3 equal zones, i.e 3160 citations in each zone. While number of journals in each zone is in the ratio of 14: 94: 413. Even though data does not fit Bradford’s Law of scattering mathematically but verbally it fits in to it. The 14 journals coming under first zone are core journals. It can be further stated that 80% citations were contributed in 507 journals. This indicates that “Small number of periodical titles account for the majority of use.” (hypothesis no. 2) is valid.

4. Out of 9481 citations, all (100%) are cited in English language. This indicates that, “English language is a predominant language” (hypothesis no. 3) is valid.

5. Out of 9481 citations, Indian citations are 1900 (20.04%) and 5980 (63.07%) citations are foreign citations. And remaining 1601(16.89%) Citations have not mentioned the country. This indicates that, “Foreign periodicals are used more than India Periodicals” (hypothesis no. 5) is valid.

6. In overall citations USA scored the top position with 2325 (24.52%) citations; second rank goes to UK with 2136 (22.53%) citations, followed by India with 1900 (20.04%) citations respectively. “Foreign periodicals are used more than India Periodicals” (hypothesis no. 5) is valid.

7. The author which the is most preferred by researchers, that document is most important to keep in the library for that purpose author ranking is essential to librarians as well as researchers. The top most cited author are “Gregg, A.L.” scores the top position with 32 (0.34%) citations, second rank goes to ‘Merchant Anwar’ with 27 (0.28%) citations, followed by ‘Eldredeg, J D’ with 25 (0.26%) citations respectively.

8. The instances of use of Medlars/Medline had reported from GMC & SRT libraries, which through out the study had generally been reported to use of periodical literature. More respondents from GMC had acquired reading lists. It may recall that the librarian of GMC had claimed to be providing current awareness and even selective dissemination of information. Teacher and other readers made more use of internet and photocopying services.
9. It was found that readers were usually discouraged by library staff when certain services were demanded. Essential services were also denied a number of times. Services demanded by the users are internet medlar/medline, photocopying is essential but cannot expect from library where basic services are lacking. It can also be observed from the above table that Internet is used by 247 (66.76%) respondents. It indicates that “Digital media has only limited impact on the medical science community” (hypothesis no. 4) is valid.

1.9.2 Suggestions

The research scholars while citing the work of other author should cite the whole bibliographical details, author’s name, title of work, source of publication, volume number, issue number, year of publication, place of publication and publisher. Out of total number of 9481 citations (the source data) 208 (2.19%) citations are not mentioned the year of publication, 246 (2.59%) citations are without authors, and 1601 (16.89%) citations are without place. So it is very hard to analyses citations properly, for solving this problem bibliographical details should be given. Citation analysis of medical dissertation will help the librarians to subscribe useful journals, find out core journal and handle whole library with maintaining standard. It also helps research scholars to select the document which gives the current information of related subject of their studies.

1.10 CONSPECTUS

The present thesis has been divided into 6 chapters viz.

Chapter 1 – Introduction
Deals with the preamble, proposed research, objectives, hypothesis, scope & limitations, methodology, summary of major conclusion & suggestions, & conspectus.

Chapter 2 – Periodical literature: A Review
Explains definitions of periodicals, citation analysis, types of resources, E-journals etc. & review of related literature.
Chapter 3 – Citation analysis: A Review
Explains definitions of bibliometrics, Scientometrics, etc. & review of related literature.

Chapter 4 – Medical College Libraries
Presents detailed profile of all the three medical college libraries, its objectives, functions & detailed information services in particular.

Chapter 5 – Use of Periodical literature in Medical college libraries
Deals with the use patterns of medical periodical literature. It has been analyzed under the following major headings viz. Citation analysis and Survey.

Chapter 6— Major Conclusions and Implications
Summarizes the major findings and suggestions, presents the conclusions drawn.

The thesis ends with the list of bibliographical references and appendix.

It is essential for any research to survey or search and sees how many scholars have written on the topic of research. Hence it was felt necessary to review the relevant literature on periodical literature. Chapter-2 provides the review of related literature on the subject Periodicals in general and E-journals in particular.

REFERENCES:

