CHAPTER – 6
SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION
6.1 Introduction

The crucial role of mental health and neuroscience information services becomes even clearer since the modern society moves towards a knowledge-based society from the point of view of mental health management. Many target-group specific programmes have been implemented throughout the country including Karnataka State to achieve the goals of integrated mental health. The mental health and neuroscience professionals require constant information support in order to improve their professional competence and delivery system. Planning for better mental health and neuroscience information services assumes great significance in a developing country like India. New approaches call for procedures which systematically identify and select relevant policy instruments, information resources, information technologies and widely professionals’ friendly networks in relation to the causes of mental health and neuroscience management system in the country. This chapter contains the summary of the study, findings of the study, implications on various agencies and suggestions for future research.

6.2 Summary of the Study

The present study evaluates the information use behaviour of mental health and neuroscience professionals in Karnataka state. The primary tasks of present study are concerned with identifying a reasonably representative sample of information users of mental health and neuroscience institutions so as to assess their views on the current status of information services and library intervention for integrated mental health care management in Karnataka State.

Karnataka state has a good number of public and private mental health and neuroscience institutions. The physicians, researchers, students, counselors, patients and general publics require timely, relevant and adequate information on various aspects of mental health care in a developing state like Karnataka. Few researchers have assessed the role of libraries in the process of public health management in general and mental health care in particular in India and abroad. Prominent among them include - Bowden and Bowden (1971), Angier (1984), Reddy (1995), Reddy and Karisiddappa (1997), Fakhoury and Wright (2001), Pandey and Raveesh (2004)
and Powell and Clarke (2006). Adequate scientific evaluations are not made on the role of libraries in mental health care management with special reference to Karnataka state. The major deficiency observed in their works is the lack of emphasis on library intervention for integrated mental health care management as a whole.

Mental health and neuroscience related information scenario of Karnataka State is less understood due to lack of comprehensive information investigations. The primary data were collected from 723 respondents who were selected on the basis of incidental sampling technique. The present study approaches the problem through a systematic survey method. Besides survey method, non-participant observation, informal discussion and several secondary sources of information were also used as other methods to study the status, drawbacks and opportunities of mental health and neuroscience related information services in Karnataka state. The analysis of data was done by using percentage analysis, frequencies procedure, descriptive procedure, chi-square test procedure, cross tabs procedure and graphical representation. The usual limitations of survey method, namely time, human inadequacies, resource inadequacies, recollection and communication were experienced by the researcher.

Karnataka state remains in the forefront regarding the availability of financial support to the mentally handicapped individuals in the country. Mental health care is another area in which Karnataka’s contributions are duly documented and appreciated by the historians. Mental health and neuroscience divisions are also established in all the eight government medical colleges and 29 private medical colleges in the state. Karnataka state has also initiated programmes in the area of mental retardation. The state has achieved commendable success in the nation from the point of view of advanced research in the field of mental health and neuroscience. NIMHANS is the biggest training centre in the country to train mental health and neuroscience professionals. In Karnataka, different innovative approaches are being tried to deliver mental health and neuroscience services. Mental health and neuroscience information centres are developed in Karnataka with a view to facilitate acquisition of documents, processing of documents, improving the services and developing human expertise in the field concerned.
The findings reveal that a majority of the respondents are male respondents, post-graduate respondents, and medical practitioners and obtained about 7 years of average professional experience. Most of the respondents had institutional libraries which enabled them to improve their professional knowledge and solve clinical problems. The libraries also organized orientation programmes. By and large, the respondents were aware of print and electronic information resources and regularly utilized them for their day to day professional needs. A majority of the respondents were also satisfied with the adequacy of print and electronic information resources which were utilized by them to the full extent despite certain institutional and technology related drawbacks.

6.3 Findings of the Study

The findings of the study are furnished under five different heads, namely, (a) demographic features of the respondents, (b) Information Need, Purpose and Motivation, (c) Use of Information Sources, (d) Information Gathering Habits (e) Use of Internet/ICT Facilities.

6.3.1 Demographic Features of the Sample

- Majority of the sample responded were males (68.5%) compared to female respondents (31.5%).
- Age group comparison revealed that maximum number of respondents was from the age group of 51 and above years (24.9%) and least from 26-30 years (13.1%) and others in between.
- Specialization-wise, respondents from psychiatry (27.5%) were more and neurosurgery and M Phil’s were least (6.9% and 6.1% respectively).
- Medical practitioners (59.8%) responded more than additional professors and associate professors 4.0% and 2.9% respectively).
- On the total institution-wise analysis revealed that respondents from private institution/hospitals constituted majority (57.5%) and respondents from autonomous institutions constituted the least (5.5%).
- Most of the sample selected had lower levels of income (2-6 lakhs) and very few of them had higher levels of income (above 6 lakhs).
6.3.2 Information Need, Purpose and Motivation of the Respondents

- Maximum information needed by the mental health and neuroscience professionals was for Information related to treatment for neuropsychiatry disorders (rank 1), followed by Clinical information patho-physiology and neurological disease (rank 2), so an and Mental health and neuroscience experimental design (rank 10) and lastly Mental health and neuroscience information management (rank 11) were the least.

- In the case of purpose of using the information, for data treatment and disease specific information, for setting up and use of latest information in your area/subject ranked top (ranks 1 and 2 respectively) and guiding a team and sharing information with members of the team, setting up R/D centres, and setting up new laboratory ranked least (ranks 17, 18 and 19 respectively).

- As far as the awareness of the sources are considered, Scanning of current contents ranked number 1 as awareness source, followed by ‘Checking references in books/articles (rank 2), and Publishers announcements and Scanning of indexing and abstracting journals were ranked least (ranks 10 and 11 respectively).

- It was found that 33.6% of the respondents visited the library twice in a week, 24.1% of them visited the library occasionally, 9.5% of them visited once in a month, 5.8% of the sample visited every day, 3.0% of them indicated once in a fortnight, and 1.4% of them visited the library once in 2 days.

- Majority of the respondents were happy with the timings of the library (83.0%) and they preferred 9AM -11PM timings (65.4%).

- Majority of the respondents indicated spaciousness of the library (72.5%), and adequacy was found to be satisfactory (85.1%).

- Most of the respondents remained in the library during week days for half an hour to 1 hour (16.7% and 47.2% respectively) and during holidays also (4.1% and 41.8% respectively).

- In the case of motivation factors, desire to achieve professional excellence and research interest in your own area/field(s) were the top
motivating factors (ranks 1&2) and self satisfaction/self improvement of related are (s) and need to qualify for higher profession were the least motivating factors (ranks 5 & 6) respectively.

6.3.3 Use of Information Sources

- As far as dependence on information sources and usage of print sources are verified, Abstracting periodicals ranked 1 followed by Index periodicals (rank 2), so on and dependence on information sources like Annual reviews and Medical manuscripts/ reprint articles ranked least.
- When extent of information use/usage of e-sources was verified, it was found that Medline Databases ranked first, followed by E-books (rank 2), and information use on Multimedia and E-drug information were ranked least (ranks 13 and 14) and others in between.
- In the case of foreign publications, usage of ,Learned journals ranked first, followed by Subject books (rank 2), so on and usage of Medical/Technical Reports/Digests and Patents ranked least (ranks 7 and 8 respectively).
- In the case of domestic publications, abstracting journals & indexing journals ranked 1 and medical/technical reports/digests ranked 2 and standards (specifications) and patents ranked least (ranks 7 and 8 respectively).
- Abstracting journals and indexing journals ranked 1 and 2 respectively for the extent of use of documents, where as annual reviews and bibliographies ranked least (rank 4 and 5 respectively).
- As far as reading and consulting the documents are considered, mental health and neuroscience literature and abstracting indexing journals were the highest priorities and learned journals in the subject and proceeding of conference/ seminar /workshops etc. where the least priorities (ranks 8 & 9).
- For the extent of usage of conceptual sources was verified for various aspects, Attending meetings, conferences, workshops, seminars, lectures, etc. ranked first, followed by telephone (rank 2), and through consultants
and personal correspondence were ranked least (ranks 9 and 10 respectively).

- In the case of personal/institutional library resources was verified, from own institution’s main library ranks first in the utilization of personal/institutional resources, followed by personal library (rank 2), other institutions library in the City/Town (rank 3), friends/professional colleagues (rank 4), institute’s department library (rank 5) and lastly direct purchase ranked least with the ranking of 6.

- When the extent of usage for information resources by mental health and neuroscience professionals and medical practitioners for using books/information from other libraries are verified, request information through e-mail service/fax service/telephone service factor ranked first, followed by getting it through friends/professional colleagues (rank 2) and sending someone and get it and lastly getting it through the library on inter-library loan were ranked least (ranks 7 and 8 respectively).

6.3.4 Information Gathering Habits of Respondents

- When reasons were asked about information use were sought, Lack of time was the major reason followed by information gathering is tedious and monotonous (rank 2), unfamiliarity with the resources ranked third and lastly making co-professionals involved ranked least with rank 4.

- As far as the nature work assigned for the mental health and neuroscience professionals and medical practitioners were verified, it was observed that, for retrospective and exhaustive literature search, was the first priority followed by collection of latest and up to date references to obtain documents, which was the second priority, to collect data information on specific topic/area and to borrow books / journals/ photocopies from other libraries was the last priority.

6.3.5 Use of Internet and Information and Communication Technology Facilities

1. Majority (94.6%) of the respondents indicated that they have access to the internet, and 32.6% of them were using it at home, 27.6% at library
148

and 10.7% of them were accessing at cyber café/Internet Browsing centers.

2. Telnet/Telemedicine was found to be the maximum internet and online search service (93.2%), followed by Teleconferencing (91.6%), Internet usage (90.1%), email (63.9%), web information resources (57.4%), and lastly address directories and health software package was found be the least.

3. When online database for search were separately analysed, it was found that Medlars was the highest priority (90.9%), followed by PsychInfo (78.8%), PsycLit (78.7%), Psychological & behavioral collection (73.3%), Indian psychological abstracts (70.1%), Index Medicus (69.1%), Mental Health abstracts (67.4%), Disability abstract database (67.2%), Science Direct (65.1%), Excerpta Medica (60.4%), Proquest (56.3%) and Science citation Index (43.6%).

4. Purpose for using for literature search ranked first, followed by for title alert service/current contents (rank 2), and for business/company information and CMEP (Continuing Medical Education Programme) were ranked least (ranks 14 and 15 respectively).

5. Factor of obtaining reprints/preprints was the major factor motivated the mental health and neuroscience professionals for Information search (rank 1), followed by ‘faster communication’ (rank 2), and to know ongoing research work and the desire to keep updating the knowledge were the least motivating factors (ranks 7 and 8).

6. It was found that 51.6% of the sample respondents indicated that they acquired the skills for CD-ROM and Internet search through library orientation programme, 70.1% of the sample respondents indicated that through Workshop/training organized by the parent institute(s)/Hospital(s) they acquired the skills, 56.7% of the sample respondents indicated that they acquired the skills for CD-ROM and internet search through commercial agencies, 58.1% of the sample through friends/professional colleagues and about 50% of them indicated that they acquired those skills by their own efforts.
7. As far as the problems concerning using internet it was found that lack of training was found to be the major problem (75.6%), timing of the computer laboratory (72.6%), lack of computer systems (72.1%), lack of self time (69.3%), Lack of power back up/ server problems (68.6%), Low transmission speed (67.8%) and lastly lack of facility was found to be one of the least problems (24.6%).

8. It was found that 77.2% of them were satisfied with the internet search facility, 45.1% of the time they approached moderately and 34.2% times they approached occasionally.

6.4 Implications on Government of India

The State has largely fulfilled its constitutional obligations as far as creating informed citizenry is concerned. The investigation reveals that it is imperative to formulate a national policy on mental health and neuroscience in India at this juncture. The Government of India should ensure appropriate mental health and neuroscience information networks and services at national, state and grassroots levels as an effective instrument of integrated personality development of the people.

This policy is essential to ensure planning and establishment of a Mental Health and Neuroscience Information Network (MHNSINET) in the country. Special emphasis should be laid on creating well organized library and information centres of national importance all over the country. This policy may consider devoting a separate section on decentralized and localized mental health and neuroscience information system.

The policy should also clearly stipulate the quantitative and qualitative measures relating to the management of library and information services such as objectives, priorities, scope of service, financial administration, human resources management, collection development, physical and bibliographic control and allied services. The management of mental health and neuroscience information services should be oriented to education, research, development and rehabilitation.
All agencies involved in mental health and neuroscience like Planning Commission of India, Knowledge Commission of India, Anthropological Survey of India, Directorate of Science and Technology, National Institute of Mental Health and Neuroscience, Universities and other research and development organizations should closely collaborate and redraw their research agenda to fulfil the goals of mental health in India.

The Government of India may also consider expanding the media units namely, Prasar Bharathi Corporation, Directorate of Field Publicity, Directorate of Advertising and Visual Publicity and Song and Drama Division at the district level so that these media units can make apparent contribution for mental health management in India. Social evaluation of mental health programmes in general and information management services in particular will improve the delivery system.

6.4.1 Implications on Karnataka State Government

The Government of Karnataka has established the Directorate of Health and Family Welfare and several medical colleges to facilitate meaningful health delivery system. A state level coordination committee of heads of various development departments, law enforcement agencies, medical colleges, hospitals and media is also required to put forth united efforts for meaningful mental health care throughout the state. Close coordination among the hospital administrators, health educators, media professionals, information professionals and mental health and neuroscience professionals is the need of the hour.

The Government of Karnataka may also consider expanding mental health and neuroscience services in all district, block and village level hospitals in order to reach out to mentally disabled persons of society. The State Government should also expand public library services and provide print and electronic information resources which would benefit mental health and neuroscience professionals, health educators, health activists, community leaders and others involved in the service of the mankind.
6.4.2 Implications on Non-Government Organizations

The non-government organizations are known as the third force from the point of view of community health and welfare. Self Help Groups, Youth Clubs, Literary Clubs, Health Clubs, Environment Organizations, Cultural Organizations and other non-government organizations have to take active part in the process of mental health care management in urban and rural areas. The leaders and activists of these organizations may strengthen the efforts of central government, state government, health departments, medical colleges and other project authorities in order to take mental health care services to the doorsteps of the beneficiaries and provide relevant feedback to the authorities concerned. The non-government organizations should also act as pressure groups to force initiation of action where none exist with respect to mental health care.

6.4.3 Implications on Mental Health and Neuroscience Libraries

The mental health and neuroscience libraries are required to create a separate Mental Health and Neuroscience Information Network in order to cope with the increasing challenges and demands. This network should be developed on the basis of standardized norms and guidelines. The salient features of network management such as policy formulation, prioritization, manpower development, collection development, technology management, operations management and evaluation should be clearly enumerated by the authorities concerned.

Policy Formulation:

Experts in the field of information science, technology and management should be involved in the process of policy formulation with special reference to mental health and neuroscience. Long term policy, mid-term policy and short term policy should be formulated with special reference to the management of mental health and neuroscience libraries in Karnataka state.
Prioritization:

The management of mental health and neuroscience institutions should ensure meaningful agenda setting in consultation with experts in information science, technology and management. The information needs and demands of professionals in the field of mental health and neuroscience should be systematically assessed in order to ensure meaningful prioritization.

Manpower Development:

The information personnel should have right kind of education, training, service and expertise in order to ensure justice to their role in the mental health and neuroscience libraries. They should also properly understand the needs of the professionals and other users community in order to develop a competitive delivery system. These institutions should recruit people who are educationally qualified, professionally competent and socially committed in order to ensure successful delivery of goods and services. Extensive training programmes to all categories of the information professionals is very essential in order to improve their professional competence.

Collection Development:

The mental health and neuroscience institutions are required to collect relevant books, professional journals, reference books, annual reviews, indexing periodicals, abstracting periodicals, review periodicals, union catalogues, index medicus, current contents, medical subject headings, theses, conference proceedings, WHO publications, reprint articles and other print resources. Electronic resources such as e-books, e-journals, e-bibliographical databases, e-clinical guidelines, e-medical records, e-drug information, e-commercial websites, e-professional websites, health software, Medline databases, Psychological literature, e-documentary services, multimedia, audio-visual materials and other electronic resources. All these print and electronic information resources should be obtained from national and international sources in order to equip the mental health and neuroscience professionals in every respect.
Technology Management:

The mental health and neuroscience libraries should also acquire the state of the art information technologies which facilitate collection and dissemination of relevant information resources and services on round the clock basis. These institutions should also ensure library automation and digitalization of information services in this age of information technology revolution. Sound infrastructure, physical facilities and advanced information technologies enrich the delivery system.

Operations Management:

The mental health and neuroscience libraries should have well-defined and organized operations management system. The information personnel should be well-versed in the art and craft of information delivery system. They should raise to the occasion and provide uninterrupted services to the users community.

Evaluation:

The mental health and neuroscience libraries should also an important function such as evaluation. The feasibility study should be conducted before the establishment of the libraries. Three types of evaluations namely, formative research (before launching the services), process research (ongoing evaluation) and summative research (after the completion of the services) should be conducted by these libraries. User feedback is highly essential to maintain the quality of information services made available in these libraries. Hence, scientific evaluation of the information resources and services facilitate further quantitative and qualitative advancement of services in these institutions.

6.5 Suggestions for Future Research

- This study is an attempt to understand the nature, scope, advantages and limitations of information resources and services with special reference to mental health and neuroscience in the state of Karnataka. But during the course of the study, it is understood that there are many areas which warrant
serious research interests in this virgin area of research as far as Karnataka state and India are concerned.

- Mental health and neuroscience information system is a vast area of research. Yet, there are many areas of future research, namely – human resources management in mental health and neuroscience, material resources management in mental health and neuroscience, new information and communication technologies management in mental health and neuroscience; and operations management in mental health and neuroscience which are broadly associated with the process of integrated mental health information management in Karnataka state and Indian Republic.

- Mental health and neuroscience information management is another broad area of research. Key elements, namely, policy making, planning, programming, implementing, coordinating, supervising, motivating, controlling, guiding, communicating and evaluating can also be studied exclusively with reference to mental health and neuroscience management in Karnataka State and Indian Republic.

- National Institute of Mental Health and Neurosciences is a premier organization in the country which conducts series of projects and experiments in the field of mental health and neurosciences. The information campaigns and library services of this institution can also be evaluated continuously.

- It is clearly emphasized that mental health and neuroscience information management in general is an enduring area of research in India and other countries. Hence, a combination of quantitative analysis, qualitative analysis, content analysis, experimental research and case study is strongly advocated for understanding the mental health and neuroscience information system in future.
6.6 Epilogue

Mental health and neuroscience field is basically interdisciplinary and draws from a number of specialities including psychiatry, psychology, neurology, psychopharmacology, social work and so on. Mental health and neuroscience related information resources and services are required by health professionals, health educators, health activists, health counselors and others involved in the mental health care sector. Mental health and neuroscience institutions are required to establish and maintain highly relevant, competent and competitive libraries which provide constant information support to mental health care management. The development and selection of mental health and neuroscience information resources and services should primarily consider the unique issues and concerns of its field, namely, educational background, social status, confidentiality, cognitive competence, professional relevance and appropriate transfer medium. It is seen that users’ awareness of information sources, frequency of library visit, use of information sources, extent of dependency of information sources, information need, purpose of use of information, motivation factors regarding utilization of information resources are primarily dependent on the demographic features and environmental factors. Most of the respondents have experienced certain drawbacks with respect to awareness of sources and knowledge of search techniques. The absence of technological implications coupled with financial and professional constraints obviously are the reasons for the lack of users’ knowledge of search techniques. Notwithstanding the constraints or obstacles the formal mental health and neuroscience information system has, it is essential to enrich the collection development and organize users’ orientation programmes regularly to educate the mental health and neuroscience professionals about different types of information tools, technology and services. It is suggested that all the mental health and neuroscience libraries should be provided with appropriate resources, professionally competent information personnel and collection of advanced materials in this field in order to successfully meet the information needs of professionals working with disabled persons.