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SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION
Chapter - VI

SUMMARY OF FINDINGS, RECOMMENDATIONS
AND CONCLUSION

The study focuses on the use of online journals by the faculty members working in the medical institutions situated in Bangalore city of Karnataka state. For the purpose of this study, the establishment and growth of medical institutions in Bangalore is taken into consideration. Bangalore Medical institution was the first institution to be established in the year 1955. NIMHANS and MSRMIH were started in 1974 and 1979 respectively. In the 1980’s four more medical institutions were established. During 1990-2009 the remaining five colleges were started. This study takes into consideration the above mentioned 12 medical institutions.

In the present research, an attempt is made to cover the faculty members working in these medical institutions. The total number of medical faculty working in these 12 institutions is 1505 as in 2011. The total number of respondents who have returned duly filled-in questionnaires is 1070, which accounts for 71.9%. Among the respondents 238 faculty members were Professors, 287 members were Associate Professors, 228 Assistant Professors and 317 Lecturers. While referring to individual medical institutions, BMIRI has 127 faculty members representing 11.9%, RRMIIH has 117 faculties, MSRMIH has 108 faculties and SJMIH has 103 faculties. Among the 12 medical institutions, IGICH has the least number of faculty members representing 2.7%. While considering the medical department, the MII (Medical Council of India) officially brought 3 broader disciplines viz., Para Clinical, Pre-Clinical and Clinical. This research work analyses the usage of e-journals among the faculty members of the above mentioned 12 medical institutions.

6.1 Library Resource Collection

Among the libraries of the 12 colleges, the libraries of NIMHANS, BMIRI and SJMIH possess more than 30,000 book resources. Further, 8 among the 12 colleges subscribe to more than 100 current journals, whereas NIMHANS subscribes to 1500 journals and SJMIH procures 256 current journals regularly. As far as
reference material is concerned, 5 libraries possess considerable size of collections. NIMHANS has a collection of 40,000 reference volumes, BMIRI possesses 22,000 and MSRMIH has 10,000 reference volumes. 33.3% of the libraries need to develop their reference collection as their present collection is less than what is required for the users of medical institution library. With regard to the collection of CDs, 3 libraries possess 200 to 300 CDs in their holding. The collection in the remaining libraries, representing 75%, is inadequate. Five of the libraries do not possess CD collection.

6.2 Library Working Hours

The study has observed that majority of the medical institution libraries remain opened between 9 a.m and 9 p.m during the week days. On the other hand some of the libraries remain opened from 9 a.m to 10 p.m. However, during the weekends and holidays, they are open only up-to 3 p.m.

6.3 Library Resources and Facilities on the Institutional Websites

It is really encouraging to note that all the 12 medical institutions have got their own websites. Institutional websites provide complete information about the courses offered, instructions to the students, online application facilities and the details about the departments and the faculty. It is encouraging to note that all the 12 institutions host the details of library services on the institutional website. Some of the institutions provide minimum information about library hours and services.

6.4 Internet Browsing Facility

It is worthy to note that all the medical institutions offer internet browsing facility in the library/institution. Internet browsing facility either in the library or at the browsing center helps the researcher and the faculty in accessing online journals - both subscription based journals and journals which are accessible freely on the web.

It is observed that some of the colleges are maintaining log book and user statistics in the internet center/library. Among the medical institutions, 66.6% maintain log book providing the details of users, whereas, 33.3% of the institutions do not maintain user statistics. However, it is really a good practice to maintain logbook
and the statistics of users because the record shows the trend in using browsing facility. Further, logbook helps in tracking the use from the point of view of security.

Among the 12 medical institutions, three of them possess adequate number of terminals for browsing the net. NIMHANS with 110 terminals with Wi-Fi connectivity, MSRMHI with 130 terminals, and BMIRI with 67 terminals meet the needs of the users. Two of the institutions-KIMS with 25 terminals and SJMIH with 21, meet the needs of the users to a moderate extent. The rest of the 7 institutions lack sufficient number of terminals to meet the needs of their faculty.

This study has also analysed the details about the bandwidth of internet connection provided by the library and institution. Among the 12 medical institutions, NIMHANS with 4 MBPS can meet the expectation of the faculty, whereas the bandwidth is 2 MBPS in 9 institutions. Only 2 institutions have the internet bandwidth of 516 KBPS. The bandwidth for internet browsing facility is adequate in all these institutions considering the number of internet terminals. The role of the internet service provider in these medical institutions under study has been observed. Ten institutions representing 83.3% have got the connectivity from Bharath Sanchar Nigam Ltd. (BSNL). The internet service provider for 2 institutions has been National Informatics Center (NIC).

It is evident that majority of the faculty members are accessing internet to a higher extent at the department as well as in the library. Another segment of 219 faculty members representing 23.6% is accessing internet at home to a moderate extent. Only a small percentage ranging between 12.4% and 40.9% are accessing internet facility from department, library, institution internet center, home and commercial internet centers. It is important to note that a large percentage of medical faculty access internet for their professional tasks to a greater extent.

As regards separate browsing facility for faculty, 5 medical institutions representing 41.6% provide separate browsing facility to the members of the faculty. On the other hand such facility is not provided in 7 medical institutions representing 58.3%. It is appropriate and convenient to provide separate browsing facility to the
members of the faculty. Medical faculties need up-to-date information and hence the institutions should make provision for accessing digital resources whenever there is need.

It is significant to note that the terminals allotted for faculty at NIMHANS is adequate. The number of terminals allotted to the faculty is 100 at SJMIH, MSRMIH and IGICH. MVJMIRH medical institution has allotted 9 terminals. On the other hand 7 medical institutions have allotted 2 to 7 terminals. JIC has provided only 2 terminals to the faculty and it is quite inadequate. Therefore, it is observed that 50.0% of institutions have not provided adequate number of terminals for accessing online journals. The inadequacy is to be considered with reference to the number of faculty working in these institutions.

6.5 Adequacy of Browsing Facility

The situation in respect of adequacy of browsing facility in the medical institutions is encouraging. The librarians are the respondents and their opinion was gathered through the questionnaires. It is really encouraging to note that 75.0% of the librarians have expressed the opinion that the members of the faculty are satisfied with the facility and the infrastructure in their institutions. The main purpose is to access online journals for academic and research purposes. In three of the institutions/libraries representing 25.0%, the adequacy is to the extent of 50.0% only and they have to improve the facilities considering the number of faculty who come for accessing online journals. Further, no librarian has felt that there is inadequate facility to a higher extent. Thus, it is important to note that a large segment of librarians is happy about the adequacy of internet facility for the purpose of accessing online journals.

It is encouraging to note that majority of the respondents from all the 12 medical institutions have offered positive response. The internet browsing facility, according to the respondents, is adequate to a higher extent. However in 4 of the institutions, a considerable number of respondents have indicated that the internet facility is inadequate. Internet facility at MVJMIRH, IGICH, NIMHANS and VIMSRC need to be improved according to the response of a small segment of faculty
members. Hence, it is deduced that internet facility for accessing online journals is said to be adequate according to the large majority of respondents. It is interesting to note that 88.2% of the male respondents and 90.4% of the female respondents have offered positive response indicating the adequacy of internet facility. From among the entire population, 88.9% have indicated adequacy of the internet facility. Only a small percentage of respondents which accounts for 11.1% has indicated that the internet facility is inadequate.

It is also important to note that among the professors, 98.9% of the respondents have expressed that the internet facility is adequate. It is observed that a large majority of medical faculty are satisfied with the adequacy of internet facility in their respective institutions. It is evident that a majority of the faculty members opine that there is an adequate internet facility both in department and library to a higher extent. Another segment of 141 faculty members representing 17.1% has expressed that the internet facility in their library is moderately adequate, whereas only a small percentage ranging between 9.5% to 36.6% hold the view that the extent of internet facility in the institution internet centers and the departments is adequate to a limited extent.

### 6.6 Subscription to Online Journals

As a matter of fact, all the 12 institutions subscribe to online journals required for their user community. Further, in 3 of the institutions representing 25.0%, individual departments subscribe to the online journals needed for the faculty and researchers. However, 91.6% of the institutions have become members of the consortium so as to get access to online journals and related data bases.

It is evident that 5 institutions representing 41.6% have been subscribing for the past 3 years. Four of the institutions representing 33.3% have been the subscribers for the past 5 years. Further, 3 institutions have been subscribing for more than 8 years. It is interesting to note that a large majority of the medical institutions in Bangalore have been subscribing to online journals only for the past 5 years. This segment of institutions accounts for 75.0%.
It is encouraging to note that the faculties of about 11 medical institutions representing 91.6% have placed demand for subscription to online journals, whereas the faculty in one medical institution representing 8.3% has not demanded for subscription to online journals. It is important to note here that the faculties of the majority of medical institutions are demanding for subscription to online journals to get information in the field of medical science.

### 6.7 Individual Faculty Subscribing to Online Journals

It is evident that 30.8% of the faculty members individually subscribe to online journals. Among the faculty members who are actively involved in teaching and research programs subscribe to a few medical journals out of their innate interest. It is this segment of faculty which needs more primary resources and up-to-date research material for their professional task. Therefore, the present research indicates that 30.8% of the faculty needs more of online journals for teaching, research and clinical practice. On the other hand, 69.2% of the faculty members do not subscribe individually to online journals. Among the faculty members, 70 professors individually subscribe to online journals which account for 36.8%. Further, among the lecturers 24.5% subscribe to online journals. From this we can understand that more number of professors subscribe to online journals than the lecturers.

It is evident that 279 faculty members representing 97.8% subscribe to 1 to 3 journals. Only four faculty members representing 1.4% subscribe to 4 to 5 journals. Another 2 faculty members representing 0.8% subscribe to more than 5 journals. It is important to note here that a large segment of faculty subscribes to 1 to 3 journals which provide up-to-date information in their subject area of teaching and research.

### 6.8 Recommendation for Subscription to Online Journals

It is evident that 59.4% of the faculty members have expressed that they recommend online journals for subscription. On the other hand it is also important to note here that 40.6% of the faculty members have given negative response. They do not recommend for subscription at all. While considering various categories of faculty, it is clear that all the categories of faculty recommend for subscription without any bias or special consideration. It is also important here to note that every
A faculty member must be given an opportunity to recommend online journals of his/her choice belonging to his/her discipline. In this way, journals carrying quality research papers can be covered in the list of journals to be subscribed regularly.

It is disheartening to note that various reasons are quoted by the faculty for not recommending online journals for subscription or renewal. 56.9% of faculty members indicate the reason that their heads of the departments are mainly entrusted with the responsibility of recommending online journals. Another segment of faculty representing 61.9% indicates the reason of paucity of funds for recommending online journals. Finally 21.5% of the faculty said that hard copies of needed journals are available in the library and therefore the necessity of recommending online journals does not arise. Among the reasons quoted by a large segment of faculty members, the main reason is that of inadequate budgetary provision.

6.9 Use of Online Journals

It is evident that 8 librarians representing 66.6% opine that the online journals are useful for teaching and research to a higher extent of 75% to 100%. Another segment, comprising 4 librarians, has expressed that the usefulness is to a moderate extent only. It is important to note here that no one has undermined the usefulness of online journals for teaching and research endeavor. It is certain, therefore, that online journals are highly useful for academic and research purposes, according to the librarians of the medical institutions.

6.10 Institution-Wise Response of Faculty on the Use of Online Journals

It is highlighted that a large majority of the respondents from all the 12 institutions have felt that the online journals are useful for their professional needs. It is also worth noting here that all the faculty from IGICH and NIMHANS have offered positive response on the usefulness of online journals.

While referring to the entire population of respondents, a large segment of faculty representing 86.5% opines that online journals are useful. However, just 144 faculty members have expressed negative opinion which account for just 13.5%. From this, it is clear that online journals are useful for medical faculty working in Bangalore city.
It is evident that 42.8% of the respondents have expressed the use of online journals in the higher range. Further, another segment of respondents representing 30.1% indicates the usage to a moderate extent. Only 26.9% of the respondents opine that the use is only to a lower extent. From this it can be inferred that the faculty members working in the medical institutions in Bangalore city rely upon online journals to a greater extent for academic, clinical and research purposes.

6.11 Gender-wise Response of Faculty on the Use of Online Journals

It is clear that 87.3% of the male faculty and 85.2% of the female faculty have responded positively, emphasizing the usefulness of online journals. However, 12.7% of the male faculty and 14.8% of the female faculty have stated that the online journals are not useful for their professional needs. There is not much difference between male and female faculty members as to the usefulness of online journals.

It is clear from the above data that there is no much difference regarding the extent use of online journals by the male and female respondents. Among the faculty members 42.9% of the male faculties have indicated higher usage. On the other hand 42.7% female respondents have indicated the higher usage. The respondents belonging to male faculty and female faculty have indicated lower usage of 27.4% and 26.3% respectively. From this it is evident that the extent of use is similar among the male and female medical faculties.

6.12 Age-Wise Response of Faculty on the Use of Online Journals

The data clearly supports the contention that as age increases there will be lower use of online journals. In the present research, faculty members whose age group is below 35 years feel that online journals are useful. This segment accounts for about 87.4%. Further, faculties in the age group of 46 to 55 years representing 85.6% opine that online journals are useful. However, faculty members whose age group is above 56 years representing 64.3% have expressed that the online journals are useful. In this age group of above 56 years there are few faculty representing 35.7% feels that online journals are not useful for them. Therefore, the inference is that considerable percentage of aged faculty does not use online journals.
6.13 Category-Wise Response of Faculty on the Use of Online Journals

It is encouraging to note that, among the entire population, 86.5% have expressed positive opinion. Only a small group of faculty representing 13.5% has indicated negatively. From among the Professors 79.8% and among the Lecturers 90.2% rely upon online journals for their professional needs. Thus, it can be deduced that overwhelming majority of the faculty belonging to all the categories use online journals.

Among the Professors, this comprises 37.4% come under the higher range. Further, 34.2% of the Professors belong to moderate range. Among Associate Professors, which comprises 33.6% belong to the higher range and 12.5% of the Associate Professors belong to the lower range. Only 25.9% of the Associate Professors come under moderate range as far as the extent of usage is concerned.

34.5% of the Assistant Professors have indicated a higher usage and belong to higher range and 32% of the Assistant Professors belong to moderate range. Among the Lecturers 34.3% come under higher range. However another segment of Lecturers representing 29.7% belong to moderate range. It is also important to note here that faculty members belonging to all the categories representing a considerable percentage of 18.9% to 27.6% have indicated that the use of online journals is to a lower extent.

6.14 Department-Wise Response of Faculty on the Use of Online Journals

In the present study 241 faculties from Para-Clinical department representing 88.6% are using the online journals for their academic and research purpose. 224 faculties from surgery department representing 84.8% opine positively on the use of online journals, whereas total of about 144 faculties from all the departments representing 13.5% have responded negatively towards the use of online journals.

It is encouraging to note that respondents representing all the departments have opined that the use of online journals is to a higher extent. Among the medical departments, respondents from surgery and Para-clinical have expressed the usage to a higher extent. On the other hand, 29.5% of the faculties from surgery and 26.6% of the faculty from Para-clinical have also indicated the use of online journals in the lower range.
6.15 Experience-Wise Response of Faculty on the Use of Online Journals

It is encouraging to note that all the 13 faculty members who are having the experience of above 26 years, 04 faculties representing 30.8% have offered negative response indicating that the online journals will not be useful them. From this negative response, it is clear that a considerable percentage of faculty, who have an experience of 26 years and above are not accustomed to the use of accessing online journals. It is interesting to note that experience factor influence the use of online journals to a considerable extent. On the other hand, only a small segment of 11.0% to 15.2% belonging to the experience groups of below 25 years have shown negative trend. An overwhelming majority of the faculty in all experience groups below 26 years have expressed that online journals will be of use to their professional tasks. 89.0% of the young faculty members have offered positive response on the use of online journals.

It is evident that a large segment of faculty representing 42.8% has indicated that the online journals are highly useful. Further, another segment of respondents representing 30.1% has indicated that the online journals are useful to a moderate extent. It is important to note respondents having less than 7 years’ experience representing 43.3% have opined that the online journals are highly useful. The respondents having experience of 8 to 15 years have said that the online journals are useful to a higher extent. This segment accounts for 43.6%. Further, respondents representing 38.4% having experience to 16 to 25 years opined that the online journals are highly useful. Finally, 22.2% of the respondents with the experience of more than 26 years have expressed extent of use of online journals in the higher range.

6.16 Extent of Experience in Using Online Journals

It is important here to note that, 55.8% of the faculty members have said that they are familiar with accessing online journals during the last 1 to 3 years. Further, among the professors a large segment representing 68.9% is familiar with accessing online journals during the last 1 to 3 years. Considering the entire population of teachers, 43.4% have expressed that they are familiar with online journals from the past 5 to 10 years. Among the entire population of teaching faculty only 7
representing 0.8% hold the view that they are familiar with accessing online journals from more than 10 years. Therefore, it can be clearly deduced that a large majority of faculty members possess the experience of accessing online journals, from the last 1 to 3 years.

This presupposes that the faculty members, to a considerable extent, are yet to become familiar and acquire skill in accessing online full text journals. Periodical training or orientation will make the faculty more skillful in using online journals for their professional task.

6.17 Availability of Important Journals on the Web

An overwhelming majority of faculty opine that important journals in their discipline are available in the web. 93.1% of the professors have given positive response. On the other hand, 168 faculty members in the entire population of teachers have offered negative response, which account for just 18.2%. Among the lecturers 66.8% are of the opinion that online journals are available in their disciplines.

It is encouraging to note that 57.1% of the professors, 57.7% of the associate professors and 53.9% of the lecturers have expressed that the availability of online journals to a higher extent. Considering the entire population, 54.1% of the faculty feels that the availability of online journals in their disciplines is to a higher extent. On the other hand a small number of faculty members representing 19.3% feel that online journals are available only to a little extent.

6.18 Ranking of Online Journals on the extent of Usage

A large segment of medical faculty use online journals in the higher range. The New England Journal of Medicine (97.40%), BMJ (84%), JAMA (92.65%), Nature Medicine (89.30%), and Lancet Interactive (88.12%) are the top five on line journals that in use in the higher extent.

6.19 Frequency of Access to Online Journals

It is encouraging to note that a large segment of a medical faculty representing 71.9% access to online journals at least once in a week. Further, 49.8% of the
respondents rely upon online journals at least twice a week. Medical faculty representing 7.9% browse online journals once in a month and 11.8% access occasionally. The research result shows a large majority of teachers belonging to the entire category rely upon online journals frequently for their professional tasks.

6.20 Need for Relying Upon Online Journals

It is evident from the table that majority of the faculty members have expressed that online journals are highly adequate for clinical practice and teaching purposes. Another segment of teachers representing 50.6% feels that online journals are moderately adequate for preparing themselves for the purpose of attending seminars and conferences as delegates. Only a small percentage ranging between 15.6% and 30.5% opine that online journals are useful to a little extent for the purposes of teaching, research, clinical practice and seminars. It is important to note that a large percentage of medical faculty use online journals for their professional tasks to a greater extent.

It is evident from the research that most of the departments have expressed that online journals are highly adequate for clinical practice and teaching purposes. Another segment of teachers representing 50.6% feel that online journals are moderately adequate for preparing themselves for the purpose of attending seminars and conferences as delegates. Only a small percentage ranging between 15.6% and 30.5% opine that online journals are useful to a little extent for the purposes of teaching, research, clinical practice and seminars.

6.21 Demand for Print and online Journals

According to the response of working librarians, it is really encouraging to note that librarians representing 75.0% opine that their faculty relies on printed copies of journals. Another group of librarians representing 25.0% among the entire population of librarians, opine that the faculty uses printed journals to a limited extent of 25.0%. It is interesting to note that a large segment of librarians feels that the faculty depends upon hard copies of journals to a higher degree.

According to the opinion of working librarians, it is interesting to note that 75.0% of the faculty relies upon hard copies of journals for their professional
endeavor to a higher degree. On the other hand 66.6% of the librarians also hold the view that the faculty needs online journals to fulfill its professional needs to a higher extent. Therefore, it is encouraging to note that hard copies of journals are in a great demand among the faculty and the digital version of journals are also being extensively in use among the medical faculty.

6.22 Specific Purpose for Accessing Online Journals

It is encouraging to note that 67.1% of the faculty relies upon online journals to know recent facts and statistics. 27.4% of the faculty relies upon online journals to get comprehensive knowledge of the subject. Another segment of faculty representing 41.8% depends upon online journals to publish research papers in journal and proceedings of the seminars and conferences. 34.2% of the faculty opines that they refer online journals to know the latest technology and to acquire chemicals and equipment. Finally, 31.9% of the faculty use online journals to know the latest trends and developments in clinical practice. Among the purposes for which online journals are accessed is for publishing research papers and getting up to date statistics in the subject field are depicted here as the strong reasons for accessing online journals.

It is evident that 8 respondents belong to above 56 years age have responded that they are using online journals to be up-date in their subject. Some faculties from same age group responded that they are using online journals for the specific purposes like getting comprehensive knowledge, publishing papers and to acquiring knowledge in their respective subjects.

Majority of 48.8% respondents who are from less than 35 years age group, depend on online journals to get comprehensive knowledge and also to be competitive in their respective field whereas 43.8% respondents of age between 36-45 years are relying on online journals to get latest knowledge about technology and equipment.

6.23 Evaluation of the Use of Online Journal

According to the response of working librarians, it is disheartening to learn from the study that 66.6% of the libraries do not conduct survey of their users regarding the use of online journals. While 2 institutions, conduct occasional survey
of users, 2 other institutions conduct periodical survey and each institution represents only 16.6% of the total number under study. It is deduced that the quality of services can be evaluated through the feedback from users. Periodical users’ study will help the libraries/institutions to modify the strategies to enhance the quality of services. Relevant journals can be provided to the users based on the periodical feedback of the faculty.

6.24 Subscription to Online Databases

It is encouraging to note that 11 institutions representing 91.6% subscribe to HELINET of Rajiv Gandhi University of Health Sciences for information services. 5 institutions representing 41.6% subscribe to MEDLINE services and 3 institutions representing 25.0% subscribe to WHOLIS of World Health Organisation. Therefore, it is certain that all the medical institutions under the study subscribe to one or the other online databases for providing information services to their faculty.

It is evident that a large majority of medical institutions have started subscribing to online databases from the year 2001. 50.0% of the institutions have been availing of the services for over the past 10 years. It is a good sign that a large majority of the institutions have been availing of online information services, where in access to journals is one of the resources provided to the users. And it is also found that one of the institutions has started availing of the service since 2007. Rest of the institutions representing 91.6% are accustomed to the use of online medical databases.

It is evident that a large majority of faculty representing 55.4% access HELINET for information. Further, 37.2% rely upon MEDLINE services. A small segment representing 4.2% uses JCCC-ICMR and WHOLIS. As regards moderate usage of medical databases a small segment of medical faculty representing less than 15% rely upon these medical databases. The faculty which express the use of medical databases to a little extent is negligible; the percentage of respondents who use to a lower extent is not more than 4.7%. From this we can conclude that it is highly encouraging to note a great majority of faculty members rely upon online medical databases especially HELINET and MEDLINE. It also presupposes that the faculty members need orientation from time to time in order to use effectively medical databases made available through the consortia.
It is encouraging to note that a large segment of faculty representing 55.4% and 37.2% has indicated that the online services of HELINET and MEDLINE are useful in higher extent respectively. Further, another segment of respondents representing 14.9% and 14.7% have indicated that the online services of MEDLINE and HELINET are useful to a moderate extent. It is important to note that respondents having less than 7 years experience 172 respondents representing 33.5% have opined that the online services of HELINET are useful in higher extent.

Another segment of teachers representing 50.6% feel that online journals are moderately adequate for preparing themselves for the purpose of attending seminars and conferences as delegates. Only a small percentage ranging between 15.6% and 30.5% opine that online journals are useful to a little extent for the purposes of teaching, research, clinical practice and seminars. It is important to note that a large percentage of medical faculty use online journals for their professional tasks to a greater extent.

6.25 Reasons for not Accessing Online Journals

It is evident that some of the faculty members responded negatively on the use of online journals. The total number of respondents who have offered negative response is 144, which account for 13.5% in the entire population of respondents in the present research. It is important to note here that a large segment of respondents representing 90.2% have quoted the reason that accessing online journals is time consuming. Further, 29.7% of the respondents who have offered negative response have quoted the reason that online journals are not essential for their teaching task. Another group of respondents representing 20.8% has opined that the online journals required for them are not being subscribed by the institution.

Among the 144 faculty members 5 respondents belong to above 56 years age group and have said that online journals are not essential for their teaching task. 27 of respondents of the same age group responded that online journals are time consuming, 3.3% faculties that are from same age group responded that useful online journals are not subscribed by the institution. It is clear from the above data, out of 144 majorities of about 130 representing 90.2% of faculties are responded that accessing online
journals is time consuming. In that 34.6% of faculties aged below 35 years think accessing online journals is time consuming and 36.7% of the same age group users complain that useful online journals needed for the academic and research purpose are not subscribed by the institution and the same age group faculties 38.1% are responded that online journals are not essential for their teaching task.

The faculty members belonging to surgery and Para-clinical have expressed the view that useful online journals for their department are not subscribed by their institutions. 20% of the faculties representing surgery department and 33.3% of the faculty representing Para-clinical discipline have quoted the reasons of non-availability of online journals for their professional task.

6.26 Library Staff to Facilitate Access to E-Journals

It is interesting to note that a majority of the medical institutions have appointed qualified library staff to facilitate access to e-journals. NIMHANS has librarians with doctorate degree. The professional staff in a majority of the libraries possesses master’s degree in library and information science. IGICH has to appoint qualified staff because extension of IT based facilities and services accesses to online journals require well qualified staff. The librarians in 91.6% of the colleges are well qualified with master’s degree in the respective field. Only the libraries of NIMHANS and MSRMH have more number of professional staff possessing master’s degree in library and information science.

6.27 Training for Library Staff to Handle Online Journals

The highlighting fact in this regard is that among the 12 librarians, 11 representing 91.6% feel that they need to undergo training so that effective services can be rendered to the faculty in subscribing to online journals and assisting the faculty to access them. It is also helpful for librarians to update and maintain IT infrastructure facilities in the library.

6.28 Training Needs for the Faculty

It is evident that 63.8% of the male respondents have expressed the need of orientation/training program from time to time. From among the entire population,
352 faculty members representing 38.1% need training to a little extent. A small segment of 33.6% opines that they need intensive training program, to be organized from time to time. Further, from among the entire population 28.3% faculty members felt that they do not need training program for access online journals.

It is evident that 63.3% of faculty members have felt that need of assistance from the technical/library staff while accessing online journals. Therefore it is suggested that library staff must be there to help the faculty member to access online journals. Three faculty members who are above 56 years of age need intensive training. Another 4 respondents belonging to the same age group opinion the training is needs to the little extent. Further, a small segment of 2 faculties of the same age group opines that training is not essential to access online journals. Another highlighting fact here is that the faculty belonging to all the age groups expresses the need conducting periodical training.

From among the entire population, 352 faculty members representing 38.1% need training to a little extent. A small segment of 33.6% opines that they need intensive training program, to be organized from time to time. Further, from among the entire population 28.3% faculty members feel that they do not need training program for access online journals.

6.29 Competency of the Library Staff/Technical Staff to Assist in Accessing Online Journals

With reference to the assistance of library/technical staff of medical institutions in accessing online journals, the faculties feel that the staff is highly cooperative. It is encouraging to note that 75.9% of respondents opine that the library staff is competent enough to assist them in accessing online journals. They also feel that the library professional staff is capable of handling orientation/training program on the subject of accessing online journals. Further, 223 respondents have expressed the opinion that the library staff lacks competency in assisting them. The percentage of respondents who have offered negative response account for 24.1%. This clearly indicates that a considerable percentage of library staff has to develop competency to teach and train faculty.
A considerable segment of lecturers representing 33.3% have expressed the view of that the library staff as of now are not capable of delivering instructions regarding access to online journals. It is also true that 1/3 of the library staff according to lecturers in this present study, themselves need adequate knowledge and skill in accessing online journals.

6.30 Present Knowledge and Skills of the Faculty in Accessing Online Journals

It is encouraging to note that a large majority of respondents feel that they are competent in accessing online journals. This segment of respondents who hold positive response account for 82.2%. Those who lack competency and skill account for just 4.4%. Further, another group of respondents who have felt that they are slightly competent account for 13.6%. From this it is clear that a large majority of faculty members are competent enough in accessing online journals. 38.2% of respondents possess adequate knowledge and skill, enough competencies. 43.8% of the respondents have got fair knowledge and skills in accessing online journals.

It is evident that 38.2% of faculties members have felt that they possess adequate skill in accessing online journals, only a small segment representing 17.9% opine that their skill is inadequate. Among the lecturers to the extent of 66.7% need to up-date their skill.

It is encouraging to note that 45.7% of respondents feel that the free online journals are highly useful. Again among the entire population of respondents 44.8% of the faculty opines that subscribed online journals are highly useful. It is also interesting to note that mere 23.5% of faculty opines that the hard copies of journals being subscribed to their libraries are highly useful. On the other hand, a negligible percentage of respondents feel that online as well as hard copies of journals are slightly useful. While referring to the entire data in the table a large population of respondents has opined that free online journals as well as subscribed online journals are highly useful for their academic and research endeavor.

6.31 Facility of Downloading/Printing of Online Papers

Among the respondents 50.7% prefer to get print outs of needed journal articles while browsing. Secondly, 52.6% of the faculty prefers to download the
journal articles on to the CD’s or pen drive. Finally, a small segment of 4.9% of the respondents have opined that they get print outs from outside firms. The table also shows that the category of lecturers avail of the services being extended in their colleges. A large segment of respondents opine that there is no provision to get print outs in their institutions. Secondly, another segment of respondents representing 21.1% opine that there is no facility in their respective college libraries and institution internet centers to get print outs.

**6.32 Opinion of Faculty on the Quality of Online Journal Resources**

The study shows the encouraging fact that 652 faculty members representing 70.4% agree that online journals carry recent advances. A small segment of 15.3% opines that online journals carry recent advances to a moderate extent. On the other hand only 37 respondents in the entire population disagree with the statement which account for 3.9%.

It is encouraging to note that a large majority of the respondents representing 55.1% agree with the statement. On the other hand, 84 respondents representing 9.1% disagree with the statement. According to them online journals do not carry articles with comprehensive information. Journal articles provide current information and in depth information on a narrow topic. Therefore, they do not provide comprehensive information on a specific topic of study.

Among the respondents 70.2% agree with the statement. Further, 249 respondents representing 28.9% hold the view that online journals supplement hard copy collections to a moderate extent. On the other hand only 5 respondents representing 0.5% disagree with the view. Therefore, it can be deduced that 70.2% of the faculty endorse the view that online journals supplement the hard copy collections of the library.

It is encouraging to note that 63.3% of the respondents agree with the statement. According to them online journals ensures access to primary information. On the other hand, only 52 respondents representing 5.2% disagree with the statement. Among the entire population of respondents 63.4% endorses the view that
online journals provide research oriented information. On the contrary 30 respondents representing 3.2% disagree with the statement. However, a large majority of the respondents have expressed that they rely upon online journals as they provide research oriented information.

6.33 RECOMMENDATIONS

Based on the study and keeping in view of the data analysis and interpretation, the following recommendations are put forward for consideration for the improvement of performances of medical institution libraries and also for inspiring the medical faculty to involve themselves in accessing online journals.

1. As the medical faculty members regularly need up to date information in their field, it is suggested to keep the libraries opened for more number of hours during weekends and holidays. Further, Medical Institutions should provide in their websites information about working hours of the library, facilities, services, special collection and details about extension programs.

2. Internet facility should be made available to all the medical faculties by the concerned institutions. Out of 12 medical institutions, 7 institutions have to increase the number of terminals in order to extend adequate infrastructure facility to the faculty. So the medical institutions have to improve their infrastructure for faculty with sufficient terminals.

3. It is recommended that medical institutions have to conduct periodical survey of their users. Based on the feedback, important decisions have to be taken regarding subscription to online journals. In this way, the institution will also come to know of its constraints in extending services and inadequacies in the infrastructure facilities being extended.

4. IGICH has to appoint required library professional and semi-professional staff so as to provide effective information services to the community of users. In order to extend IT based facilities and services, including facilitating access to online journals, well qualified staff is required.

5. It is also important here to note that every faculty must be given an opportunity for recommending online journals belonging to their discipline for teaching, research and clinical practice. In this way, journals carrying quality
research papers can be covered in the list of journals to be subscribed regularly.

6. It is also worth suggesting that institutions should provide adequate funds for subscription to online journals. Consortia approach or resource sharing program should also be initiated to make important online journals available to the faculty at minimum expenditure. Therefore, resource sharing program in a network environment has to be encouraged in order to make more number of journals covering many disciplines be made available to the medical faculty.

7. In order to utilise the growing range of electronic journals, library professionals should encourage the faculty and research scholars to acquire and practice the skills necessary to exploit them.

8. Intensive training programs must be organized for library staff and medical faculties from time to time to access online journals comfortably. Librarians need to be deputed to workshops or training programs on e-resources and e-journal consortia.

9. It is suggested to conduct user education programs to introduce, familiarize and acquaint different sources of information belonging to different subjects of medical sciences.

6.34 CONCLUSION

Access to online resources has become a necessity now-a-days. This is more so in the sphere of medical and emergency disciplines. Teachers and researchers find it essential to have access to e-journals to accomplish their professional tasks in an effective way. This trend is assuming importance since the recent past. On account of this trend, institutions have to inevitably emphasize and assign priority in developing infrastructure facilities. Higher band width and adequate number of internet browsing terminals have to be extended to the informed needs of the users. In addition, the institutions have to subscribe to more number of online journals and medical data bases through the consortium. The user community has been found extensively using J-Gate Service (JCC – ICMR) of Indian Council of Medical Research and also HELINET service of Rajiv Gandhi University of Health Sciences. The academic bodies of the medical institutions and the Library Advisory Committees have to consider subscription to online journals and e-books, including the popular
medical databases of the consortia as an essentiality for ongoing teaching and research programmes. Therefore, it is necessary that the medical institutions have to conduct the survey of users periodically, mainly to ascertain the extent of the use of various e-journals and medical databases. The user statistics and the opinion survey help to revise the list of online journals to be subscribed or subscription to be renewed from time to time. Feedback from the users of online resources shows the exact use of the individual titles from time to time. Some of the large medical institutions have to establish adequate infrastructure facilities and the secured network. Taking back up of the resources purchased is also found necessary now a days in order to overcome the sudden crash of the publishers platform. Disaster Recovery Centre has become mandatory to overcome such of these situations and the appointment of the competent system administrator and support staff for maintaining hardware and networking is also found necessary in large medical libraries like NIMHANS and SJMI where the medical professionals especially, teachers and researchers rely upon large amount of online resources on regular basis.

Of late, medical faculty and researchers have been relying upon online resources to a great extent. As the trend is increasing day by day, institutions have also started giving importance for the development of infrastructure and subscription to more of e-resources, enabling the users to access, to primary electronic resources from work place, as well as, from home. On account of this, users at large are getting remote access to the resources using user ID and password. The current trend is that the medical faculty expects access to on-line journals and books whenever there is need. They also expect the service providers to extend access facility from any place as well. Hence, access to online resources, considering the fact of ‘anytime and from anywhere’ has become the order of the day.