CHAPTER - 5

Major Findings and Observations

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Today's users have their information needs met via a number of options. They can use either print formats or access online library resources and services via networks. Due to the needs of medical professionals for high quality information, medical libraries have been adopting web resources to provide information and services. Web resources have exploded in popularity and use. They can enable innovations in learning, teaching, clinical practice and patient care; and they increase timeliness in research as well as increase discovery and creation of new fields of inquiry.

Availability of web resources has changed what medical faculty and students actually read and use. They now tend to use only what is easily accessible. Access to web resources has decreased the time spent on searching for information. But the ability to use web resources efficiently depends on basic computer skills, knowledge of what is available and how to use them. The main aim of this study was to investigate the perception and utilization of web as a learning resource by the faculty members and postgraduate students in medical college libraries of Coastal Karnataka with a view to plan the strategies the libraries could use to improve their services.

The analysis and interpretation of data collected through the survey could reveal several aspects of perception and utilization of web resources by the faculty and students of medical colleges in Coastal Karnataka under the study. The data collected from the field is being analyzed in detail in the previous chapter. This chapter highlights the summary of the major findings and observations based on the analysis made in chapters 3 and 4, so as to substantiate the hypotheses formulated and to fulfill the objectives listed in chapter 1. The findings are broadly classified under appropriate headings with supporting tables and figures. The first section presents the major findings based on the data analyzed in chapter 4. The second section generates the by-product of the study.

5.1 MAJOR FINDINGS OF THE STUDY

The findings of this study confirmed that medical faculty members and postgraduate students are active users of the web and rely heavily on web-based information for various purposes. They perceived the web as an important learning resource and used it for their teaching activities, clinical practice, postgraduate studies, writing papers, preparing for lectures and undertaking research. They enjoyed the convenience in searching the web and used the web to obtain medical information. Nevertheless, some of the findings of
this study give causes for concern. On the basis of the results of the survey, the significant findings of the study are drawn here below under appropriate headings:

5.1.1 Medical College Libraries in Coastal Karnataka

- The study found that the professional education in medical sciences is offered at six medical colleges in Coastal Karnataka, Karnataka State, India (Tables 3.2 and 4.1).

- All these medical colleges are managed by private management/trust/deemed universities. They offer a broad-based 4 ½ years plus 1 year rotating compulsory internship undergraduate programme (MBBS) and 3 years postgraduate programme (MD and MS), 2 years postgraduate medical diploma programme and 3 years super speciality programme (DM and MCh) in various branches of medical sciences.

- All the medical colleges have libraries catering to their needs. Libraries are well equipped with modern facilities with computers, Internet facilities and web resources allow the faculty and students to probe beyond the ‘book-world’ and explore wider realms of knowledge.

5.1.2 Respondents

The respondents of the six medical colleges under the study are categorized under two groups, namely the faculty members and postgraduate students. Four hundred and seventy two respondents (472) are drawn from six (6) medical colleges (Tables 4.1, 4.2, 4.3 and Figures 4.1, 4.2, 4.3).

5.1.3 Demographic Characteristics of the Respondents

- An examination of the demographic data of the respondents indicated that majority of them are male and they account for 67.6%. Remaining are female (32.4%) respondents. The responses also show that majority of respondents belonged to younger generation and they are in the age group of 21-30 years and they account for 63.3%. There is an average presence of respondents in the age group of 31-40 years as well and they account for 24.8%. Remaining 11.9% of respondents belonged to age group of 41 years and above. Further, speciality-wise findings show that majority of respondents (51.7%) are from clinical side, followed by 26.3% are from para-clinical side and 22% are from pre-clinical side (Table 4.4 and Figures 4.4, 4.5, 4.6).

- The respondents are stratified into two positions as faculty members and postgraduate students who are the target population of this study. In comparing the sample to the population of interest, postgraduate students are clearly over represented and they account for 52.1%. Remaining are faculty members and they account for 47.9% (Table 4.4 and Figure 4.7).
• The study highlights, out of 226 faculty members who participated in this study, majority of them having 1-5 years of teaching experience and they account for 50%. Remaining 21.7% of faculty members having 6-10 years of teaching experience and 28.3% of them having 11 years and above of teaching experience. Total 246 postgraduate students who are studying in 1st year, 2nd year and 3rd year have responded to the study. Majority of them are from 2nd year of study and they account for 38.2%. Remaining 32.5% and 29.3% of postgraduate students are from 1st year of study and 3rd year of study respectively (Table 4.4 and Figures 4.9, 4.10).

5.1.4 Frequency of Library Visit
It is observed from the study that very high amount of respondents are visiting the library daily or at least 2-3 times a week and they account for 71%. The study further gives the evidence that postgraduate students are more frequently visiting the library (79.6% - daily or at least 2-3 times a week). Also 61.5% of faculty members visit the library daily or at least 2-3 times a week. Since the postgraduate students have to prepare for the exams and they are more involved in clinical practice, they might be visiting the library more often than faculty members (Table 4.5 and Figure 4.11).

5.1.5 Purpose of Library Visit
The study observed that majority of the respondents visit the library to refer books and journals than access to web resources. The study also found that majority of postgraduate students (72.8%) visit the library for studying. Further, the study reveals that majority of faculty members (79.2%) visit the library for referring journals. This can be understood that faculty members are more involved in publishing research papers. The study found that about 46-48% of faculty members and postgraduate students visited the library to access web resources (Table 4.6 and Figure 4.12).

5.1.6 Most Preferred Information Format for Accessing Information
It can be noted that majority of faculty members (48.7%) were of the opinion that web resources are their most preferred information source whereas majority of postgraduate students (48%) were of the opinion that print resources are their major source of information. The study proves, faculty members prefer web as major source of information for latest information on their subject for teaching, clinical practice and making publications. At the same time, postgraduate students prefer print as their major source of information (mainly textbooks/reference books) for their studies (Table 4.7 and Figure 4.13).
5.1.7 Level of Computer Literacy
The study reveals that majority of respondents (51.1%) possessed average computer skills. The study also recognized that both faculty members and postgraduate students are almost equally skilled in the use of computers (Table 4.8 and Figure 4.14).

5.1.8 Familiarity with the Web Resources
- It was found that vast majority of respondents (91.3%) are very much familiar with PubMed/Medline bibliographic database. This proves that PubMed/Medline is 'The Bible' for medical professionals for accessing required bibliographic information on any topic. It has been also found that an overwhelming number of faculty members (92.5%) and postgraduate students (90.2%) are familiar with PubMed/Medline bibliographic database (Table 4.9 and Figure 4.15).

- Among the online databases, the study confirms that Science Direct (62.3%) is the most familiar database for the respondents followed by MD Consult (42.6%) and OvidSP (31.8%). The study further gives the evidence that 65.9% of faculty members and 58.9% of postgraduate students are said to be familiar with Science Direct online database. It is observed that 45.9% of postgraduate students reported to be more familiar with MD Consult database while 35% of faculty members said to be more familiar with OvidSP database. The study also reports that maximum numbers of respondents (approximate 75%) were not much familiar with ProQuest Medical Library and Cochrane Library Online databases. This proves the existence of these databases is unknown for majority of respondents or they are not using the same for their work (Table 4.9 and Figure 4.15).

- Average respondents (54.2%) reported that they are familiar with online journals of various publishers. Interestingly, 43.6% of respondents disclosed that they are familiar with open access resources/databases. The study further highlights, 48.7% of faculty members and 39% of postgraduate students reported to be familiar with open access resources/databases. It can be noted that open access resources/databases could be accessed anywhere as they are available free of cost on the net (Table 4.9 and Figure 4.15).

5.1.9 Respondents' Perception of Web as a Learning Resource
On the basis of the results of the survey, the significant findings of the perception of web as a learning resource are drawn based on the personal characteristics of the respondents such as gender, age, position, speciality, teaching experience of faculty members and year of study of postgraduate students. The major findings are as follows:

5.1.9.1 Overall Perception
- Majority of respondents perceived that they do enjoy using the web as a learning resource and would indeed wish to use it in the future. Many respondents also indicated that they do indeed prefer accessing the web more than the traditional
library. Some of the reasons that the respondents gave are that the web has more resources compared to the traditional library, the web is very fast and time-saving and information in the web is more current than that found in the traditional library. Further, high respondents stated that web is more knowledgeable, exhaustive, authoritarian and easy to use. Hence, they are using web maximum for their study, teaching, healthcare and research purposes (Table 4.10).

- The most trouble findings of this study highlight, approximate half of the respondents perceived that they are not able to access all they need using web resources. It has been further perceived by the respondents that knowledge and skills of computer are essential in accessing web resources (Table 4.10).

- Interestingly, majority of the respondents strongly agreed or agreed that their libraries provide adequate access to web resources and also agreed that they are able to access web resources easily and comfortably at their libraries (Table 4.10).

5.1.9.2 Perception of Respondents Based on their Gender

- It is noted that there is minor variation in the level of perception of usefulness of web resources for study, teaching, healthcare and research; and requirement of knowledge and skills of computer for accessing web resources. It has been found that levels of perceptions are slightly high among female respondents. Further, they were of the opinion that web is very fast and is more time-saving (Table 4.11).

- Majority of male respondents were not ready to accept the statement ‘web resources are more useful than print resources’ compared to female respondents as their response rate is positively good to this statement. Interestingly, both male and female respondents almost equally agreed that web is more current than the traditional library, web has more resources compared to the traditional library and web resources give references which are not available in the traditional library. Further, both male and female respondents were of the common opinion that web resources are knowledgeable; they are easy to use and well-focused on their subjects (Table 4.11).

- It can be noted that, almost equal numbers of male and female respondents were of the opinion that their libraries have adequate access to web resources while high number of female respondents disclosed that they are able to access web resources easily and comfortably at their libraries compared to male respondents (Table 4.11).

- The results indicated that there is no significant difference in perceptions of web between male and female respondents (Table 4.11A). This has been evidenced by an independent sample T-test ($T=0.143$ at $P=0.05$).

5.1.9.3 Perception of Respondents According to their Age

- Majority of the respondents who were in the age categories of 21-30 years and 31-40 years agreed the statement ‘obtaining needed or required information for my work
from web is very fast and is more time-saving’. Respondents of all age categories agreed that they are making maximum use of web for their study, teaching, healthcare and research; and also agreed that knowledge and skills of computer is essential in accessing web resources. Another important reveals of this study was that the high numbers of respondents who were in age categories of 21-30 years and 41 years and above agreed with the statement ‘web resources are more useful than print resources’ (Table 4.12).

The study also confirms that the respondents who were in age group of 21-30 years strongly agreed or agreed that web is more current than the traditional library compared to other age groups of respondents. Almost all the age groups of respondents were of the common opinion that web has more resources compared to the traditional library and web resources give references which are not available in the traditional library. Further, the respondents of all the age groups strongly agreed or agreed that web resources are knowledgeable and they are easy to use and well focused on their subjects (Table 4.12).

It can be understood that high number of respondents who were in the age group of 21-30 years were of the opinion that their libraries provide adequate access to web resources compared to other age groups of respondents. It was also found that more respondents who were in the age group of 21-30 years expressed their opinion that they could access web resources easily and comfortably at their libraries (Table 4.12).

The result shows that perception on web resources is not significantly difference among the various age categories of respondents (Table 4.12A). This has been proved through one-way analysis of variance – ANOVA test (F=0.077 at P=0.05).

5.1.9.4 Perception of Respondents Based on their Positions

Majority of faculty members agreed that web is very fast and is more time-saving; they are using web maximum for their study, teaching, healthcare and research; and knowledge and skills of computer are essential in accessing web resources compared to postgraduate students. However, majority of the faculty members and postgraduate students disagreed with the statement ‘web resources are more useful than print resources’ (Table 4.13).

Further, majority of faculty members and postgraduate students strongly agreed or agreed that web is more current than the traditional library and web has more resources compared to the traditional library. The study also pointed out that majority of the postgraduate students were of the opinion that web resources give references which are not available in the traditional library. Furthermore, the statement ‘web resources are knowledgeable and they are easy to use and well-focused on my subject’ was strongly agreed or agreed by majority of postgraduate students (Table 4.13).
• It was found that vast majority of postgraduate students and faculty members were of 
the opinion that their libraries provide adequate access to web resources and further 
they reported that they could access web resources easily and comfortably at their 
libraries (Table 4.13).

• This study indicates that there is no significant difference between faculty members 
and postgraduate students in perceiving the web as a learning resource (Table 4.13A) 
as observed by an independent sample T-test (T=0.738 at P=0.05).

5.1.9.5 Perception of Respondents Based on their Specialities

• A result shows that maximum respondents from clinical speciality perceived that web 
is very fast and more time-saving compared to the respondents who were from 
para-clinical and pre-clinical specialities. Research result also shows that majority of 
respondents from para-clinical speciality agreed with the statement ‘I find maximum 
use of resources for study, teaching, healthcare and research’. Further, the respondents 
of all specialities (clinical, para-clinical and pre-clinical) agreed that knowledge and 
skills of computer is essential in accessing web resources (Table 4.14).

• Respondents from clinical speciality were of the opinion that web is more current than 
the traditional library. Further, respondents of all specialities were of the opinion that 
web has more resources compared to the traditional library and web resources give 
references which are not available in the traditional library. Furthermore, majority of 
respondents of all the specialities remarkably stated that web resources are 
knowledgeable, easy to use and well-focused on their subjects (Table 4.14).

• Majority of respondents of all specialities agreed with the statement ‘our library 
provides adequate access to web resources’. The study also reported that majority of 
respondents from clinical speciality agreed that they are able to access web resources 
easily and comfortably at their libraries compared to the respondents of pre-clinical 
and para-clinical specialities (Table 4.14).

• All specialities-wise (clinical, para-clinical and pre-clinical) respondents’ perception 
on web resources indicated that there is no significant difference among them in 
perceiving the web as a learning resource (Table 4.14A) which has been evidenced by 
one-way analysis of variance – ANOVA test (F=0.786 at P=0.05).

5.1.9.6 Perception of Faculty Members According to their Teaching Experience

• Faculty members who are having teaching experience of 1 year and above perceived 
that searching in web is very fast and is more time-saving and they are making 
maximum use of web for their study, teaching, healthcare and research activities. 
Further, they agreed that knowledge and skills of computers is essential in accessing 
the web resources. Majority of the faculty members who are having teaching
experience of 11 years and above disagreed with the statement 'web resources are more useful than print resources' (Table 4.15).

- Faculty members who were having teaching experience of 1-5 years and 11 years and above perceived that web is more current than that found in the traditional library. Further, the faculty members who were having teaching experience of 1 year and above agreed that web has more resources compared to the traditional library and have agreed the statement 'web resources are knowledgeable and they are easy to use and well-focused on my subject'. Very less number of faculty members who had teaching experience of 6-10 years agreed the statement 'web resources give references which are not available in the traditional library' (Table 4.15).

- It can be understood that majority of the faculty members who were having the teaching experience of 11 years and above agree with the statement 'our library provides adequate access to web resources'. It was noted that majority of faculty members who were having teaching experience of 6-10 years are able to access web resources easily and comfortably at their libraries (Table 4.15).

- There was no significant difference among the faculty members who were having the teaching experience of ‘1-5 years’, ‘6-10 years’ and ‘11 years and above’ in perceiving the web as a learning resource (Table 4.15A) as observed by one-way analysis of variance – ANOVA test ($F=0.568$ at $P=0.05$).

5.1.9.7 Perception of Postgraduate Students Based on their Year of Study

- Postgraduate students who were studying in 3rd year have an overwhelmingly perceived that searching in web is very fast and is more time-saving compared to the postgraduate students who were studying in 1st year and 2nd year. Almost all the postgraduate students who were studying in 1st year, 2nd year and 3rd year equally agreed that they are making maximum use of web for their study, teaching, healthcare and research; knowledge and skills of computers are essential in accessing web resources; and information in the web is more current than that found in the traditional library. Almost half of the postgraduate students who were in 1st year, 2nd year and 3rd year disagreed with the statement ‘web resources are more useful than print resources’ (Table 4.16).

- The study reveals that less number of postgraduate students who were studying in 1st year felt that web resources are easy to use and well-focused on their subject compared to other postgraduate students who were in 2nd year and 3rd year. Majority of postgraduate students who were studying in 3rd year have confirmed that web has more resources compared to the traditional library. Vast percentages of postgraduate students who were studying in 1st year, 2nd year and 3rd year agreed that web resources give references which are not available in the traditional library and further they also agreed that web resources are knowledgeable, easy to use and well-focused on their subjects (Table 4.16).
• One of the important reveals of the study is that an overwhelming number of postgraduate students who were in 1st year, 2nd year and 3rd year felt that the web services provided by their library are adequate. The study also revealed that postgraduate students who were studying in 2nd year have indicated that they are able to access web resources easily and comfortably at their libraries (Table 4.16).

• Result indicated that there is no significant difference among postgraduate students who were studying in 1st year, 2nd year and 3rd year in perceiving the web as a learning resource (Table 4.16A). This has been proved by one-way analysis of variance – ANOVA test ($F=0.350$ at $P=0.05$).

5.1.10 Response on Using Web Resources
From the analysis, it can be concluded that an overwhelming number of respondents (97.2%) were accessing the web resources at their libraries under the study (Table 4.17).

5.1.11 Purpose of Using Web Resources
• The study proved that high number of faculty members used web resources for teaching activities (78.8%), writing papers (73%), preparing for lectures (69.5%) and undertaking research (64.2%) whereas moderate numbers of them used the same for clinical practice (55.3%). This proves that faculty members were not much dependent on web for clinical practice. But study confirms, faculty members were much dependent on web resources for teaching and making publications (Table 4.18).

• It can be noted that highest number postgraduate students (96.3%) used web resources for their studies whereas the use of web for other purposes like clinical practice (26%), preparing for lectures (35.4%) and undertaking research (38.6%) were very low (Table 4.18).

5.1.12 Reasons for Choosing Web Resources
• It may be said that an overwhelming number of respondents (86.7%) reported that easy accessibility as the top reason to choose information on the web. But the most trouble finding of this study was that only 37.7% of respondents indicated that the accuracy of content is the reason for choosing web resources. It can be understood that though the web is so convenient, respondents were not sure with its accuracy of content (Table 4.19 and Figure 4.17).

• The study also found that average numbers of faculty members and postgraduate students were of the common opinion that reliability of source of information and availability of peer reviewed data are the other reasons for choosing web resources for their work (Table 4.19 and Figure 4.17).
5.1.13 Location of Accessing Web Resources

It can be interpreted that respondents were accessing the web resources from different locations. However, it can be understood that 'library' was the main location for accessing web resources for majority (75.8%) of respondents. The study finding also reveals that 'department' is another main location to access web resources for 61.9% of faculty members and 52.8% of postgraduate students. The study also reported that average numbers of faculty members and postgraduate students have preferred 'home' as their location to access web resources (Table 4.20 and Figure 4.18).

5.1.14 Method of Accessing Web Resources

This study investigated that the 'search engines' are the main tool for the majority of respondents (66.5%) for accessing the web resources. It can be seen from the analysis that the majority of faculty members (57.5%) and postgraduate students (64.6%) disclosed that 'library website' is their another tool for accessing the web resources (Table 4.21 and Figure 4.19).

5.1.15 Web Resources Available in Medical College Libraries under the Study

The study identified that medical college libraries under the study are providing various types of web resources such as bibliographic database, online full text databases, open access resources/databases, online journals of various publishers and e-books. Table 5.1 presents the web resources which were identified as findings of the study.

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<th>Full text online databases</th>
<th>Open access resources/databases</th>
<th>Online journals of various publishers</th>
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5.1.16 Respondents' Utilization of Web Resources

On the basis of the results of the survey, the significant findings of the utilization of web as a learning resource are drawn based on the personal characteristics of the respondents such as gender, age, position, speciality, teaching experience of faculty members, year of study of postgraduate students and utilization of web resources versus level of computer literacy of the respondents. These have been presented here below:

5.1.16.1 Overall Utilization

- From the analysis, it can be noted that PubMed/Medline is the most widely used bibliographic database by all the respondents. Among the online databases, it has been reported that majority of respondents used Science Direct followed by MD Consult and OvidSP. Maximum percentages of respondents reported that they never used ProQuest Medical Library and Cochrane Library Online databases (Table 4.22).

- Finding also revealed that majority of respondents used online journals of various publishers along with e-books. Further, the study highlighted the importance of open access resources/databases as large numbers of respondents used them for their work (Table 4.22).

5.1.16.2 Respondents' Utilization Based on their Gender

- It can be seen from the analysis that both male and female respondents widely used the PubMed/Medline bibliographic database. Regarding the use of full text online databases, Science Direct is the most commonly accessed database by both male and female respondents. It is also confirmed that more male respondents used MD Consult database whereas OvidSP database was used more by female respondents. However, majority of male and female respondents never used ProQuest Medical Library database (Table 4.23).

- The study also observed that female respondents were the maximum user of online journals of various publishers and e-books compared to male respondents. However, both male and female respondents confirmed that they were the regular users of open access resources/databases (Table 4.23).

- Results of this study indicated that 'gender' factor does not influence faculty members and postgraduate students' use of web as a learning resource. This has been evidenced by Chi-square test (Table 4.23).

5.1.16.3 Respondents' Utilization According to their Age

- More than half of the respondents in all age categories widely used PubMed/Medline. The study also observed that Science Direct was the most widely used online database by all age categories of respondents whereas MD Consult and OvidSP were most widely accessed databases by the respondents who were in the age group of 41 years
Another highlight of the study was that majority of the respondents who were in all age categories never used ProQuest Medical Library database (Table 4.24).

- The study also disclosed that majority of respondents who were in the age group of 41 years and above used online journals of various publishers and e-books. Interestingly, the study shows that the open access resources/databases used by majority of respondents of all age groups (Table 4.24).

- The study reveals that 'age' category factor determines the faculty members and postgraduate students' use of web as a learning resource. This has been proved through Chi-square test (Table 4.24).

5.1.16.4 Respondents' Utilization Based on their Positions

- It can be understood that PubMed/Medline was widely used bibliographic database by both faculty members and postgraduate students. It was also observed that majority of faculty members and postgraduate students accessed MD Consult next to Science Direct online database for their work. The study further shows that majority of faculty members used OvidSP online database. Analysis of the study disclosed that ProQuest Medical Library and Cochrane Library Online databases were not being much used by both faculty members and postgraduate students (Table 4.25).

- The study also depicts that majority of faculty members used online journals of various publishers and open access resources/databases whereas majority of postgraduate students used e-books (Table 4.25).

- This result indicated that there was a weak negative association between faculty members and postgraduate students in usage of web resources which has been evidenced by Chi-square test (Table 4.25).

5.1.16.5 Respondents' Utilization Based on their Specialities

- From the analysis of the study, it can be noted that PubMed/Medline was the widely used bibliographic database among respondents of all specialities (pre-clinical, para-clinical and clinical). The study also highlighted that majority of respondents of para-clinical and clinical specialities used Science Direct online database more frequently. However, majority of respondents of pre-clinical speciality reported that they never used the same. Further, MD Consult and OvidSP online databases were more used by respondents of clinical speciality compared to respondents of pre-clinical and para-clinical specialities. It is observed that majority of respondents of pre-clinical and para-clinical specialities have never used ProQuest Medical Library and Cochrane Library Online databases compared to respondents of clinical speciality (Table 4.26).

- Another depicts of the study was that the respondents of clinical speciality used the online journals of various publishers and e-books very frequently. The study also disclosed that majority of respondents of para-clinical speciality and average numbers
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of respondents of pre-clinical and clinical specialities used open access resources/databases more frequently (Table 4.26).

• Results of this study indicated that there was an average negative association among respondents of various specialities in extent utilization of web resources and this proves that 'specialities' factor more or less influence the faculty members and postgraduate students' use of web as a learning resource as observed by Chi-square test (Table 4.26).

5.1.16.6 Faculty Members' Utilization According to their Teaching Experience

• It is observable that the PubMed/Medline is used more by the faculty members who were having the teaching experience of more than 6 years. Further, they have also extensively used Science Direct, MD Consult and OvidSP online databases for their work. Another important observation of this study was that majority of faculty members who had 1 year and above teaching experience never used ProQuest Medical Library online database (Table 4.27).

• The study also reported that majority of faculty members who were having teaching experience of 10 years and above accessed online journals of various publishers and e-books frequently. Again, another remarkable result of this study was that the majority of faculty members who had teaching experience of 1 year and above frequently accessed open access resources/databases (Table 4.27).

• Results of this study indicated that 'teaching experience' factor does not influence faculty members' use of web resources which has been evidenced by Chi-square test (Table 4.27).

5.1.16.7 Postgraduate Students' Utilization Based on their Year of Study

• It can be noted that PubMed/Medline bibliographic database was widely used by the postgraduate students who were studying in 1st year, 2nd year and 3rd year. At the same time, it is observed that postgraduate students who are studying in 3rd year have accessed it very frequently. Among the online databases, it was proved that majority of postgraduate students who were in 3rd year used Science Direct, MD Consult and OvidSP databases very frequently than the postgraduate students who were in 1st year and 2nd year. The study further showed that ProQuest Medical Library and Cochrane Library Online databases were not being frequently used by postgraduate students who were studying in 1st year, 2nd year and 3rd year (Table 4.28).

• Another important reveals of the study was that the postgraduate students who were studying in 3rd year accessed online journals of various publishers, e-books and open access resources/databases very frequently (Table 4.28).

• This can be understood that there was a week negative association among postgraduate students who were studying in 1st year, 2nd year and 3rd year in extent
utilization of web resources. This confirmed that ‘learning experience’ factor softly influences the postgraduate students’ use of web as a learning resource. This has been proved through Chi-square test (Table 4.28).

5.1.16.8 Utilization of Web Resources Vs Level of Computer Literacy of the Respondents

- It can be understood that the respondents who were expert in computer skills accessed the web resources such as PubMed/Medline, MD Consult, OvidSP, online journals of various publishers, open access resources/databases, etc frequently. Further, the respondents who were having above average computer skills accessed web resources less frequently. Furthermore, the respondents who were having below average computer knowledge did not access web resources frequently (Table 4.29).

- The study proved that ‘computer skills’ factor strongly influences the faculty members and postgraduate students’ use of web as a learning resource as observed by Chi-square test (Table 4.29).

5.1.17 Ranking the Value of Web Resources

- It can be seen that the vast majority of respondents were of the opinion that PubMed/Medline bibliographic database was most important web resource for their work. High percentages of respondents were also of the opinion that Science Direct was the most important full text online database followed by MD Consult and OvidSP online databases. Majority of respondents were of the opinion that ProQuest Medical Library online database is not much important for their work (Table 4.30).

- Majority of respondents said to be confirmed that online journals of various publishers and e-books provided by their libraries and open access resources/databases were important web resources for conducting their work (Table 4.30).

- Web resources such as online journals of various publishers, e-books, OvidSP and MD Consult were said to be important by majority of postgraduate students than faculty members (Table 4.31).

5.1.18 Satisfaction with the Web Resources Available at the Libraries

- Majority of respondents have expressed their satisfaction towards various web resources available at their libraries. It can be noted that the vast majority of respondents were fully satisfied with PubMed/Medline bibliographic database service provided by the libraries. Majority of respondents were also satisfied with the accessibility of online journals of various publishers, open access resources/databases and full text online databases - such as Science Direct, MD Consult and OvidSP at their libraries (Table 4.32).
• Percentage of respondents expressed their dissatisfaction with the level of access to some of the online databases such as Science Direct, OvidSP, MD Consult and ProQuest Medical Library at their libraries was very low. At the same time, nearly 25% of respondents reported that they are not able to access some of the databases such as Science Direct, OvidSP, MD Consult and ProQuest Medical Library at their libraries (Table 4.32).

• From the analysis, it was remarkably noted that postgraduate students were more satisfied than the faculty members with the various web resources available at their libraries (Table 4.33).

5.1.19 Barriers in Accessing the Web Resources at the Libraries

The strong barriers in accessing the web resources as perceived by the respondents were low Internet speed and lack of access to all information in the web. Some of the other barriers reported by the respondents were lack of Internet support service, lack of terminals in the library, lack of familiarity with web resources, failure to get password from the library, lack of encouragement/guidance and lack of training/orientation in using web resources (Table 4.34).

5.1.20 Competence in Using the Web Resources

On the basis of analysis, it is said that majority of the respondents were ‘beginners’ in accessing most of the web resources (Table 4.35). Analysis further pointed out that faculty members were more ‘expert’ in accessing the most of the web resources compared to postgraduate students. This means, majority of postgraduate students reported that they are ‘beginners’ in accessing the web resources required for their learning (Table 4.36).

5.1.21 Views on Usefulness of Training in Accessing the Web Resources

It is noted from the analysis that majority of respondents were of the opinion that training in accessing the web resources available at their libraries is ‘useful’ for the maximum utilization of the same (Table 4.37).

5.1.22 Preferred Mode of Training for Accessing Web Resources

It is confirmed from the study that ‘hands-on or workshop’ is the most preferred mode of training followed by ‘one-on-one demonstration’ for accessing the web resources at the libraries. Majority of respondents least preferred ‘online tutorial’ as their training mode in accessing the web resources (Table 4.39).

5.1.23 Findings in Relation to the Hypotheses

All the hypotheses formulated in the present study are tested in chapter 4. These have been presented here below:
• **Hypothesis 1:** Faculty and students have perceived that their library is providing adequate access to web resources and they are easily accessible.

Section 4.9.4 of the chapter 4 revealed that high majority of postgraduate students (80.4%) and majority of faculty members (73.9%) strongly agreed or agreed that their libraries providing adequate access to web resources. At the same time, it was found that the majority of faculty members (66.3%) and postgraduate students (70.8%) strongly agreed or agreed that they are able to access web resources easily and comfortably at their libraries (Table 4.13). Hence, this hypothesis is proved.

• **Hypothesis 2:** Perception of the faculty and students on web resources is positively associated to teaching and learning experience of faculty and students.

This hypothesis was tested using one-way analysis of variance (ANOVA) in the sections 4.9.6 and 4.9.7 of the chapter 4. This was indicated that there was no significant difference among the faculty members who were having the teaching experience of 1-5 years, 6-10 years and 11 years and above; and among the postgraduate students who were studying (learning experience) in 1st year, 2nd year and 3rd year in perceiving the web as a learning resource (Tables 4.15A and 4.16A). Thus the hypothesis is rejected.

• **Hypothesis 3:** There is significant relationship between the extent of faculty and students' utilization of the web and their personal characteristics such as gender, age, specialities, teaching and learning experience.

This hypothesis was tested using Chi-square to establish any significant relationship in the sections 4.15.2, 4.15.3, 4.15.5, 4.15.6 and 4.15.7 of the chapter 4. While 'gender' of faculty members and postgraduate students and 'teaching experience' of faculty members did not have any significant relationship in utilization of web, but the 'age categories' did (Tables 4.23, 4.24 and 4.27). However, faculty members and postgraduate students' other personal characteristics such as 'specialities' and 'teaching experience' (postgraduate students) have soft significant relationship in utilization of web (Tables 4.26 and 4.28). This hypothesis is rejected with regard to faculty members and postgraduate students' personal characteristics such as gender and teaching experience (faculty members). With regard to age categories, this hypothesis is proved. However, the other personal characteristic of respondents such as specialities and learning experience (postgraduate students), this hypothesis is more or less proved.

• **Hypothesis 4:** PubMed/Medline is more frequently used database by faculty and students.

Section 4.15.4 of the chapter 4 gives the evidence that 57.6% of faculty members and 51.2% of postgraduate students used PubMed/Medline daily or at least 2-3 times a
week (Table 4.25). This proves that PubMed/Medline database is more frequently used by both faculty members and postgraduate students. Hence, this hypothesis is proved.

- **Hypothesis 5:** There is significant relationship between the extent of faculty and students' utilization of the web resources and computer literacy.

The factor, i.e. computer skills associated with faculty members and postgraduate students' usage of web as a learning resource was tested using Chi-square in the section 4.15.8 of the chapter 4, which showed significant difference among them in utilizing the web resources (Table 4.29). This means that faculty members and postgraduate students' lack of computer skills increased their non-use of web as a learning resource. This proved that 'computer skill factor' influences the faculty members and postgraduate students' use of web as a learning resource. Hence, this hypothesis is accepted.

### 5.2 BY-PRODUCT OF THE STUDY

The study generated the following by-product:

- **Useful Websites on Medical Sciences:** This study facilitated the compilation of useful websites in the field of medical sciences. These are presented in Appendix - 1.