

USE OF INTERNET AND ELECTRONIC RESOURCES AMONG PARAMEDICAL PROFESSIONALS: A SURVEY

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ABSTRACT:

The fast development of the information technology in this age has changed the functions and definition of librarianship. The e-resources have become the vital part of the every kind of library. Print format of documents are being changed into electronic form. E-resources have become a need of the library. E-resources have several advantages over the print counterparts. The enormous developments in Information and Communication Technology (ICT) have changed the world information scene. It has brought drastic changes in the way the information generated, stored, organized, accessed, retrieved and consumed. In the present time almost information sources are available in electronic form. They take less time to publish, occupy less space and can access from remote location. The present study was conducted on the use of e-resources among paramedical professionals in Madurai region. The study shows that below 2 hours of access to internet takes the first order reporting among the paramedical professionals, 3-4 hours of access to internet the second, 2-3 hours of access to internet the third, 4-5 hours of access to internet the fourth and above 5 hours of access to internet the last. The study also shows that 31.67 per cent of the respondents search documents in the library with the help of medical website. The present study reveals that the services in library are good takes the first order reporting among the paramedical professionals; excellent services take the second position, no opinion the third.

KEY WORDS: Internet, e-resources, Medical Websites, Online Databases, Paramedical, Information Communication Technology,

1. Introduction

Young people today live in a world characterized by dramatic cultural, economic, social and educational differences; individual circumstances depend largely on where a person is born and raised. More than 800 million adults (two-thirds of them women) still lack basic literacy skills; at the other end of the spectrum, the use of information and communication technologies (ICT) is skyrocketing. Notwithstanding the immense diversity in living environments, an unprecedented and unifying global media culture has developed that challenges and often surpasses such traditional forms of socialization as family and school. This complex cultural situation in which young people are struggling to find direction in their lives or simply to survive, to improve their living conditions, and to develop their identities has been given various names. Some call it the

information or informational age, while others prefer the term techno culture or techno capitalism, global media culture, or simply globalization, referring to the dialectic process in which the global and the local exist as “combined and mutually implicating principles”. Labels such as post-industrial, virtual and cyber society are also in use. The idea behind all these terms is that across the globe, ICT are playing a central role in young people’s lives and in society at large.

Paramedical Services are those services which assist medical professionals (doctors) in one or many forms. Paramedical professionals support the medical team with closely related functions for complete diagnosis and treatment. In other words, we can say that paramedical science is the backbone for medical sciences because right diagnosis of diseases is necessary to prevent fatal diseases. Thus, medical Science will be paralyzed without paramedical science. Paramedical professionals supplement the work of doctors in specialized areas for facilitating diagnosis, treatment or therapy. The charm of the medical profession, of being able to alleviate suffering, has always enthused young people. However, the bottle neck in medical college admissions arising out of a disproportionate demand of seats, as well as rigorous and long medical education has attracted attention to paramedical careers. Due to population growth, urbanization trends, and the general aging of the population-as the population gets older (and more likely to specialized fields with extremely sophisticated equipments and assist medical practitioners in their work by carrying out diagnostic investigations.

2. Medical Consortiums in India

UGC has initiated the UGC-INFONET E-Journal consortium is a great boon to academia in the country, Under the consortium, about 494 full text scholarly electronic journals in Medicine and open access databases like PubMed Central, Biomed Central, High wire Press and Public Library of Science, Directory of online journals etc can be accessed.

2.1 ERMED Consortium

Recognizing the need for sharing of information in Biomedical research and development in India through Online Networking the ICMR, New Delhi has taken keen interest in establishing ERMED-India Consortium. 39 centrally funded Government Institutions including 10 Director General of Health Services libraries + 28 ICMR Libraries and AIIMS library are selected at the initial stage as its core members. The consortium will be coordinated through its headquarter set up at the NML. JCCC (Journal Custom Content for Consortia) has been launched by ICMR Head Quarters.

2.2 National Medical Library Consortium

National medical library, New Delhi has taken up a pilot project for linking 25 Government Medical College Libraries in the country. National Medical Library has set up a network of health science libraries in India. With the support from WHO, it has 6 regional medical libraries and 8 resource medical libraries in the country. National Medical Library is also the national focal point of HELLIS Network set up by the WHO in Southeast Asia in 1982.

2.3 HELINET

Health Science Library and Information Network (HELINET), an electronic resource sharing consortia concept was adapted by Rajiv Gandhi Institute of Health Sciences, Karnataka (RGUHS) in 2001 to network all health science libraries in Karnataka. It is the first health university in the country started in 2003 as a collaborative effort to network 25 medical colleges in the state for promoting e-journal access and resource sharing. HELINET has grown to be the single largest library consortium in the country by membership. Today, HELINET is reaching out to 666 medical colleges in the state under university's umbrella.

2.4 NTRMED

The Digital Library Consortium (named as NTR MEDNET) of NTR University of Health Sciences, Vijayawada, Andhra Pradesh with the libraries of all affiliated colleges was inaugurated on 12-10-2005. under this Consortium the following E-resources are available for the 316 member colleges.

2.5 International Multiple Sclerosis Genetic Consortium (IMSGC)

Its primary goal is to identify the genes influencing the risk of developing Multiple Sclerosis and thereby inform the patients on the pathogenesis of the disease. The genetic effects attributable to individual genes are modest. The mission is to revolutionize the treatment and prevention of cancer and complex diseases by rigorously developing and applying post-genome science to advances in human health. The consortium brings together researchers from Cambridge University (UK), Duke University. <http://www.imsgc.org>

2.6 The International Genomic Consortium (IGC)

It is a non-profit medical research organization established to expand upon the discoveries of the Human Genome Project and other systematic sequencing efforts by combining world-class genomic research, bioinformatics and diagnostic technologies in the fight against cancer and other complex diseases.

2.7 International Consortium for Medical Imaging Technology

Its main objective is to develop and implement medical imaging technology which will lead to improved diagnosis and health care delivery as well as reduction in costs. The goal is to exploit new advances in imaging modalities, computer hardware and software, and network technology to store, retrieve, analyze and deliver image data to the diagnosing physician. The information carried in these images is crucial to treatment for the departments like cardiology, neurology, surgery, obstetrics, orthopedics and pulmonary medicine.

2.8 The International Consortium for Anti-ViraLs(ICAV)

It has its origins in the year 2003. The ultimate goal of ICAV is to discover and develop new therapeutics that target host functions that are crucial to the infectivity of many viruses. By linking scientists and others from Universities, Institutes, Hospitals and Industry from around the world, ICAV will not only facilitate knowledge transfer and effective use of limited resources and global expertise, but will also accelerate the development and delivery of drugs that target viral diseases worldwide.

2.9 Global Health Medical Education Consortium

It is a consortium of faculty and health care educators dedicated to international health education in U.S. and Canadian medical schools. GHEC's mission is to foster international health medical education in four program areas curriculum, clinical training, career development, and international education policy. GHEC members represent over 80 medical schools in the United States, Canada and Central America.

3. Review of Literature

Khan and Ahmed (2009) explore the comparative use of e-journals among researchers of AMU and BHU. They found that the researchers of the both universities are much aware about the use of e-journals facility in respective universities. They sought the purpose of using e-journals facility.

Deahpande and Pathak (2008) analyze the role of e-journals among astronomy and astrophysics libraries in India. The study discussed the matter of awareness, place, and frequency of accessing e-journals. They also have given emphasis to information literacy programmes.

Moghaddam and Talawar (2008) explore the use of electronic journals at the Indian Institute of Science libraries in India. The questionnaire method was used to collect the data from respondents. It has taken several issues regarding usage of e-journals among users and highlights the major problems to accessing them. They found that lack of proper training and infrastructure facility hinders the use of e-journals. They have given prolific suggestions for further improvement.

Raza and Upadhyay (2006) have studied the usage of e-journals by the researchers of Aligarh Muslim University. The article revealed the awareness level of researchers about e-journals, appropriate place for accessing them, purpose of use and the main obstacles which are faced by the researchers while accessing the e-journals. Its findings stress orientation programmes that should be conducted frequently by the library for researchers. The journal Nature, Science and Proceeding of the National Academy of Science are most popular journals among the respondents. Bhatt (2005) has stated that e-journals play a pivot role in the research and development activities. He has discussed in details the concept of e-journals and its benefits. He has also evaluated the problems and perspectives of e-journals in an Indian context.

Renwick (2005) determines the medical science faculty's perception regarding use of e-resources in number and frequency in Medical Science Library at The University of the West Indies. He found that the most of the respondents were computer literate, hence they were quite used to these resources. The most of the respondents felt need of training in the form of workshops.

Singh (2003) discussed the concept of e-journal portal and their role in the library and information centers. He defines the importance of e-journal portals in acquisition and dissemination of full text information to library and information centers. Some e-journal portals such as Emerald, Science Direct, J-Gate and IDEAL are defined in paper. He also explored the various facets and issues of e-portal journals in brief.

4. Objectives

The following objectives are evolved for the purpose of the present study:

1. To examine the respondents' duration and quantum of time utilization in search of medical information
2. To study the respondents' frequency of utilizing medical information
3. To analyze the respondents' extent of access to e-resources
4. To examine the respondents' purpose of gathering e-resources
5. To study the respondents' satisfaction and problems in utilizing the e-resources
6. To suggest appropriate measures to increase the electronic resource utilization among paramedical professionals

5. Methodology

The researcher has employed a well structured questionnaire for collecting the data from the paramedical professionals. The questionnaire has been prepared in such a way that the respondents could easily understand the items. A total number of 300 questionnaires were distributed among the paramedical professionals, who reside in and around Madurai. They are personally requested to fill up the questionnaire at their earliest convenience in order to help the investigator to collect the same during his next visit. The investigator has to make second, third and fourth visits to the bars for collecting the filled-in-questionnaires from the practicing advocates. During these visits, the investigator could collect questionnaires from only 240 out of 300 paramedical professionals among whom the questionnaires were distributed. This constitutes 80 % (240/300) of the total response. While selecting sample, stratification method has been adopted with a view to give relative weightage to the respondents of different categories.

6. Results and Discussion

6.1 Distribution of Respondents by Age

The distribution of paramedical professionals according to their age is shown in Table-1

Table: 1 Age wise Distribution of Respondents

Age	No. of Respondents	Percentage
Below 30	86	35.83
30 – 35	28	11.67
35 - 40	20	8.33
41 – 45	36	15.00
45 – 50	46	19.17
Above 50	24	10.00
Total	240	100.00

A study of data in table-1 indicates the age wise distribution of respondents. It could be noted that out of the total 240 respondents, 35.83 per cent of them belong to the age group of below 30 years and 11.67 per cent of them come under the age group of 30-35 years. In this study, 8.33 per cent of the respondents' age is in the range of 35-40 years and 15 per cent of them are found in the age group of 41-45 years. It is observed that 19.17 per cent of the respondents belong to the age group 45-50 years and the rest 10 per cent of them belong to the age group of above 50 years. It is concluded from the above table that majority of the respondents are found to be with the age group below 30 years.

6.2 Distribution of Respondents by Profession

Table: 2 Profession wise Distribution of Respondents

Profession	No. of Respondents	Percentage
Pharmacy	82	34.17
Nursing	63	26.25
Radiography	24	10.00
Optometry	19	7.91
Medical Technology	52	21.67
Total	240	100.00

A study of data in table-2 indicates the profession wise distribution of respondents. It could be noted that out of the total 240 respondents, 34.17 per cent of them are pharmacy professionals and 26.25 per cent of them are nursing professionals. In this study, 10 per cent of the respondents are radiography professionals and 7.91 per cent of them are optometry professionals. It is observed that 21.67 per cent of the respondents are medical technology professionals. It is concluded that more pharmacy professionals followed by nursing professionals are the respondents in the study.

6.3 Distribution of Respondents by Gender

Table: 3 Gender wise Distribution of Respondents

Gender	No. of Respondents	Percentage
Male	106	44.17
Female	134	55.83
Total	240	100.00

A study of data in table-3 indicates the gender distribution of respondents. It could be noted that out of the total 240 respondents, more than half of the respondents (55.83%) belong to the female group and the rest of them (44.17%) are males. It is concluded that female paramedical professionals constitute more in number than male paramedical professionals, indicating the presence of female domination in paramedical professionals in Tamil Nadu.

6.4 Internet Access

Table: 4 Age wise Respondents' Frequency of Access to Internet

Age	Less than 2 hours	2 -3 hours	3-4 hours	4-5 hours	Above 5 hours	Total
Below 30	14 (16.29)	17 (19.77)	39 (45.34)	9 (10.47)	7 (8.13)	86
30 – 35	11 (39.29)	7 (25.00)	5 (17.85)	3 (10.71)	2 (7.14)	28
36 - 40	9 (45.00)	5 (25.00)	4 (20.00)	1 (5.00)	1 (5.00)	20
41 – 45	15 (41.67)	9 (25.00)	6 (16.67)	4 (11.11)	2 (5.55)	36
46 – 50	17 (36.96)	13 (28.27)	7 (15.21)	6 (13.04)	3 (6.52)	46
Above 50	8 (33.33)	6 (25.00)	5 (20.83)	3 (12.6)	2 (8.33)	24
Total	74 (30.83)	57 (23.75)	66 (27.60)	26 (10.83)	17 (7.08)	240

Data presented in table-4 indicate the age wise respondents' frequency of access to internet. It could be noted that out of the total 240 respondents, 30.83 per cent of them have below 2 hours of access to internet. Majority of the respondents (45%) in the age group 36-40 years have below 2 hours of access to internet. In this study, 23.75 per cent of them have 2-3 hours of access to internet and majority of the respondents (28.27%) of the highest age group have 2-3 hours of access to internet. Out of the total 240 respondents, 27.60 per cent of them have 3-4 hours of access to internet. Majority of the respondents (45.34%) in the age group below 30 years have 3-

4 hours of access to internet. In this study, 10.83 per cent of the respondents have 4-5 hours of access to internet. Majority of the respondents (12.60%) in the age group above 50 years have 4-5 hours of access to internet. Moreover, 7.08 per cent of the respondents have above 5 hours of access to internet and majority of the highest age group respondents (8.33%) fall under this category. It could be seen clearly from the above discussion that below 2 hours of access to internet takes the first order reporting among the paramedical professionals, 3-4 hours of access to internet the second, 2-3 hours of access to internet the third, 4-5 hours of access to internet the fourth and above 5 hours of access to internet the last (Khan and Ahmed, 2009).

Table: 5 Profession wise Respondents' Frequency of Access to Internet

Profession	Less than 2 hours	2 -3 hours	3-4 hours	4-5 hours	Above 5 hours	Total
Pharmacy	30 (36.59)	25 (30.48)	15 (18.30)	7 (8.53)	5 (6.10)	82
Nursing	27 (42.86)	18 (28.58)	8 (12.70)	6 (9.52)	4 (6.34)	63
Radiography	10 (41.66)	6 (25.00)	4 (16.66)	3 (12.6)	1 (4.17)	24
Optometry	9 (47.36)	5 (26.31)	3 (15.79)	1 (5.27)	1 (5.27)	19
Medical Technology	20 (38.47)	18 (34.61)	8 (15.38)	3 (5.77)	3 (5.77)	52
Total	96 (40)	72 (30)	38 (15.83)	20 (8.33)	14 (5.84)	240

Data presented in table-5 indicate the profession wise respondents' frequency of access to internet. It could be noted that majority of the pharmacy professional respondents (36.59%) have below 2 hours of access to internet. Around one fourth of the radiography professional respondents (25%) have 2-3 hours of access to internet. Around one third of the medical technology professional respondents (34.61%) have 2-3 hours of access to internet. It could be seen clearly from the above discussion that below 2 hours of access to internet is quite common among all the respondents.

Table: 6 Gender wise Respondents' Frequency of Access to Internet

Gender	Less than 2 hours	2 -3 hours	3-4 hours	4-5 hours	Above 5 hours	Total
Male	42 (39.62)	24 (22.64)	18 (16.99)	12 (11.32)	10 9.43	106
Female	58 (43.29)	32 (23.89)	20 (14.92)	18 (13.43)	6 (4.47)	134
Total	100 (41.67)	56 (23.33)	38 (15.83)	30 (12.5)	16 (6.67)	240

Data presented in table-6 indicate the gender wise respondents' frequency of access to internet. It could be noted that majority of the male respondents (36.92%) have below 2hours of access to internet, whereas, majority of the female respondents also (43.29%) have below 2hours of access to internet.

6.5 Information Searching Pattern

Table : 7 Age wise Respondent's Mode of Searching Documents in the Library

Age	Library Catalogue	Library Staff	Directly search in the stack	Medical websites	Online Database	Total
Below 30	8 (9.30)	5 (5.21)	23 (26.75)	31 (36.05)	19 (22.09)	86
30 – 35	4 (14.28)	2 (7.15)	6 (21.42)	9 (32.15)	7 (25.00)	28
36 - 40	3 (15.00)	4 (20.00)	5 (25.00)	6 (30.00)	2 (10.00)	20
41 – 45	2 (5.55)	4 (11.11)	9 (25.00)	15 (41.67)	6 (16.67)	36
46 – 50	8 (17.39)	7 (15.21)	18 (39.14)	9 (19.57)	4 (8.69)	46
Above 50	2 (8.33)	4 (16.67)	10 (41.67)	6 (25.00)	2 (8.33)	24
Total	27 (11.25)	26 (10.83)	71 (29.58)	76 (31.67)	40 (16.67)	240

Data presented in table-7 indicate the age wise respondents' mode of searching documents in the library. It could be noted that out of the total 240 respondents, 11.25 per cent of them search documents with the help of the library catalogue. Majority of the respondents in the age group 46-50 years (17.39%) make use of library catalogue to search documents in the library. In this study, 10.83 per cent of them search documents in the library with the help of library staff and a considerable number of the respondents in the age 36-40 (20%) search documents in the library with the help of library staff. Out of the total 240 respondents, 29.58 per cent of them directly

search documents in the library. In this study, 31.67 per cent of the respondents search documents in the library with the help of medical website (Deahpande and Pathak, 2008). Majority of the respondents in the age group 41-45 years (41.67%) search documents in the library with the help of medical website. Moreover, 16.67 per cent of the respondents search documents in the library with the help of online database (Bhatt, 2005).

Table : 8 Profession wise Respondent's Mode of Searching Documents in the Library

Profession	Library Catalogue	Library Staff	Directly search in the stack	Medical websites	Online Database	Total
Pharmacy	7 (8.53)	8 (9.76)	14 (17.08)	38 (46.34)	15 (18.29)	82
Nursing	4 (6.34)	5 (7.93)	18 (28.58)	27 (42.86)	9 (14.28)	63
Radiography	3 (12.6)	2 (8.33)	5 (20.83)	8 (33.33)	6 (25.00)	24
Optometry	2 (10.52)	1 (5.27)	3 (15.79)	6 (31.58)	7 (36.84)	19
Medical Technology	8 (15.39)	4 (7.69)	15 (28.84)	13 (25.00)	12 (23.08)	52
Total	24 (10.00)	20 (8.33)	55 (22.91)	92 (38.35)	49 (20.41)	240

Data presented in table-8 indicate the profession wise respondents' mode of searching documents in the library. It could be noted that majority of the pharmacy respondents (46.34%) and also nursing respondents (42.86%) search library documents with the help of medical websites. A considerable number of optometry respondents (36.84%) directly search library documents. Around one third of the medical technology respondents (28.84%) make use the library documents with the help of library staff (Sing, 2003). It could be seen clearly from the above discussion that pharmacy and nursing respondents mainly make use of websites to search documents in the library.

Table : 9 Gender wise Respondent's Mode of Searching Documents in the Library

Gender	Library Catalogue	Library Staff	Directly search in the stack	Medical websites	Online Database	Total
Male	10 (9.43)	12 (11.32)	28 (26.41)	34 (32.08)	22 (20.76)	106
Female	18 (13.43)	20 (14.93)	17 (12.69)	51 (38.06)	28 (20.89)	134
Total	28 (11.67)	32 (13.33)	45 (18.76)	85 (35.41)	50 (20.83)	240

Data presented in table-9 indicate the gender wise respondents' mode of searching documents in the library. It could be noted that majority of the male respondents (32.08%) search library documents with the help of medical websites. A considerable number of female respondents (20.89%) search library documents with the help of the online database. It could be seen clearly from the above discussion that male respondents mainly make use of medical websites to search documents in the library.

6.6 CD-ROM Database on Medical Information

Table 10. Profession Wise Respondents' Preference to Medical CD-ROM Database

CD-ROM Database	Profession					
	Phar-macy	Nursing	Radio-graphy	Opto-Metry	MT	Total
Highwire Press	4.11	4.31	3.71	3.72	3.52	3.96
MedBio World	3.42	3.51	2.35	2.36	2.26	2.75
Ingenta	4.20	4.32	3.82	3.85	3.89	3.90
All Health Net	3.39	3.42	3.51	2.36	2.44	2.80
Blackwell Synergy	4.10	4.16	3.89	3.79	3.76	4.00
MedInd	2.95	2.79	2.12	2.89	2.59	2.45
Science Direct	3.81	3.88	3.35	3.16	2.99	3.46
LWW Online	3.77	3.88	3.32	2.51	2.22	3.37
Springer Link	3.37	3.87	4.10	4.26	4.36	7.44
Health Inter Network India	2.52	2.42	2.56	3.79	3.82	3.77
Total	4.30	4.44	4.11	3.72	3.49	4.15

A study of data in table-10 indicates the profession wise respondents' preference to medical CD-ROM database. The profession wise analysis examines the following facts. The nursing respondents occupy the first position with respect to their overall preference to all CD-ROM databases as their secured mean score is 4.44 on a 5 point rating scale (Raza and Upadhyay, 2006). The pharmacy respondents take the second position in their overall preference to all CD-ROM databases as their secured mean score is 4.30 on a 5 point rating scale. The radiography respondents rank in the third position in their overall preference to all CD-ROM databases as

their secured mean score is 4.11 on a 5 point rating scale. The optometry respondents take the fourth position in their overall preference to all CD-ROM databases as their secured mean score is 3.72 on a 5 point rating scale. The medical technology respondents occupy the fifth position in their overall preference to all CD-ROM databases as their secured mean score is 3.49 on a 5 point rating scale. It could be seen clearly from the above discussion that nursing respondents rank in the first position with respect to their overall preference to medical CD-ROM databases, pharmacy respondents the second, radiography the third, optometry the fourth and medical technology the last.

Table 11. Gender Wise Respondents' Preference to Medical CD-ROM Database

CD-ROM	Gender		Total
	Male	Female	
Highwire Press	3.89	4.10	4.22
MedBio World	2.52	3.36	3.79
Ingenta	3.87	4.10	4.26
All Health Net	2.42	2.56	3.79
Blackwell Synergy	3.77	3.79	4.10
MedInd	2.21	2.36	2.86
Science Direct	3.56	3.89	4.11
LWW Online	2.16	2.56	2.76
Springer Link	3.76	3.99	4.01
Health Inter Network India	2.14	2.02	2.56
Total	3.03	3.27	3.65

A study of data in table-11 indicates the gender wise respondents' preference to medical CD-ROM databases. The female respondents occupy the first position with respect to their overall preference to medical CD-ROM databases as their secured mean score is 3.27 on a 5 point rating scale. The male respondents take the second position in their overall preference to medical CD-ROM databases as their secured mean score is 3.03 on a 5 point rating scale. It could be seen clearly from the above discussion that female respondents take the first position in their overall preference on medical CD-ROM database and male respondents take the second position.

6.7 Purpose of using E-Resources

Table 12. Profession wise Respondents' Purpose of Gathering E-resources

Purpose	Profession					
	Phar-macy	Nursing	Radio-Graphy	Opto-Metry	MT	Total
To access PubMed	3.48	3.65	2.53	2.42	2.14	3.23
To access Indian MEDLARS	3.99	3.49	3.72	3.89	3.59	3.80
To access Medical Data Bases	3.36	3.42	2.18	2.26	3.26	2.92
To access Medical Publishers	4.21	3.11	3.85	3.14	2.96	4.02
To access Professional Societies and Organizations	4.14	4.21	3.55	3.26	3.12	3.90
For research	4.10	4.05	3.62	3.56	3.44	3.85
For getting relevant information in the area of specialization	3.79	4.09	2.79	3.14	3.12	3.12
For improving Medical Science knowledge	3.80	3.16	2.86	2.56	2.42	3.20
E-journals	3.52	3.10	2.36	2.49	2.16	2.78
E-books	4.21	4.21	3.81	3.78	3.57	4.00
Career Information	3.33	2.42	2.21	2.56	2.89	2.65
General Information	3.85	3.59	3.16	3.09	3.00	3.49
Sending and receiving e-mail	4.32	4.21	4.10	3.49	3.11	4.15
Entertainment	4.10	3.95	3.95	3.66	3.22	4.08
Total	3.55	3.14	2.76	3.01	2.96	3.09

A study of data in table-12 indicates the profession wise respondents' purpose of gathering e-resources. The profession wise analysis examines the following facts. The pharmacy respondents top the position with respect to their overall purpose of e-resources as their secured mean score is 3.55 on a 5 point rating scale (Renwick, 2005). The nursing respondents take the second position in their overall purpose of gathering e-resources as their secured mean score is 3.14 on a 5 point rating scale. The optometry respondents rank in the third position in their overall purpose of gathering e-resources as their secured mean score is 3.01 on a 5 point rating scale. The medical technology respondents take the fourth position in their overall purpose of gathering e-resources as their secured mean score is 2.96 on a 5 point rating scale. The radiography respondents occupy the fifth position in their overall purpose of gathering e-resources as their secured mean score is 2.76 on a 5 point rating scale (Moghaddam and Talwar, 2008).

6.8 Opinion towards Library Services

Table: 13 Age wise Respondent's Views on Library Services

Age	Excellent	Good	No Opinion	Poor	Very Poor	Total
Below 30	28 (32.55)	46 (53.49)	4 (4.66)	3 (3.49)	5 (5.81)	86
30 – 35	8 (28.58)	11 (39.29)	2 (7.14)	4 (14.28)	3 (10.71)	28
36- 40	5 (25.00)	7 (35.00)	5 (25.00)	1 (5.00)	2 (10.00)	20
41 – 45	6 (16.67)	18 (50.00)	3 (8.33)	5 (13.89)	4 (11.11)	36
46 – 50	10 (21.73)	26 (56.52)	4 (8.69)	3 (6.53)	3 (6.53)	46
Above 50	8 (33.33)	9 (37.5)	1 (4.17)	4 (16.67)	2 (8.33)	24
Total	65 (27.09)	117 (48.76)	19 (7.91)	20 (8.33)	19 (7.91)	240

Data presented in table-13 indicate the age wise respondents' views on library services. It could be noted that out of the total 240 respondents, 27.09 per cent of them report that the services of the library are excellent. Majority of the respondents (33.33%) in the age group above 50, report that the services of the library are excellent. In this study, 48.76 per cent of them report that the services of the library is good and majority of the respondents (56.52 %) of the age group 46-50 years report that the services in the library are good. Out of the total 240 respondents, 7.91 per cent of them report that they have no opinion about the services in the library. In this study, 8.33 per cent of the respondents report that the services in library are poor. Moreover, 7.91 per cent of the respondents report that services in library are very poor. It could be seen clearly from the above discussion that the services in library are good takes the first order reporting among the paramedical professionals; excellent services take the second position, no opinion the third.

Table: 14 Profession wise Respondent's Views on Library Services

Profession	Excellent	Good	No Opinion	Poor	Very Poor	Total
Pharmacy	25 (30.49)	38 (46.34)	4 (4.88)	7 (8.53)	8 (9.76)	82
Nursing	17 (26.98)	33 (52.39)	3 (4.77)	6 (9.52)	4 (6.34)	63
Radiography	9 (37.5)	6 (25.00)	2 (8.33)	4 (16.66)	3 (12.6)	24
Optometry	7 (36.84)	6 (31.58)	1 (5.27)	2 (10.52)	3 (15.79)	19
Medical Technology	17 (32.69)	15 (28.84)	8 (15.39)	5 (9.61)	7 (13.47)	52
Total	75 (31.25)	98 (40.83)	18 (7.6)	24 (10.00)	25 (10.41)	240

Table-14 presents data on the profession wise respondents' views on library services. It could be noted that more than one third of the pharmacy respondents (46.34%) and optometry respondents (31.58%) observe that library services are good. The radiography respondents (37.50%) view mainly that they have excellent about library services. A considerable number of medical technology respondents (32.69%) perceive about the excellent performance of library service.

Table : 15 Gender wise Respondent's Views on Library Services

Gender	Excellent	Good	No Opinion	Poor	Very Poor	Total
Male	31 (29.25)	52 (49.05)	8 (7.55)	10 (9.44)	5 (4.72)	106
Female	48 (35.82)	68 (50.75)	7 (5.22)	6 (4.48)	5 (3.73)	134
Total	79 (32.91)	120 (50.00)	15 (6.26)	16 (6.67)	10 (4.16)	240

Data presented in table-15 indicate the gender wise respondents' views on library services. It could be noted that majority of the male respondents (49.05) report that the services are good. A considerable number of the female respondents (35.82%) report that the services are good. It could be seen clearly from the above discussion that female respondents feel better than males about library services.

7. Suggestions

The following suggestions are put forward to improve the use of the e-resources among the paramedical professionals:

- Paramedical education curricula should be revised at the national level to accommodate the integration of information literacy and the use of e-library, either as embedded or standalone courses. This is in recognition of the changes in technology, especially, in managing paramedical information.
- Workshops and seminars should be conducted and popular lectures should be arranged in every paramedical profession.
- Different levels of user education programmes should be arranged for paramedical professionals.
- The library staff should cooperate with the users and help them in overcoming the technical difficulties faced while using e-resources.

- Proper training should be provided to the library staff about the use of various databases, e-resources, and internet operations available in the library which will in turn help them to train the users.

8. Conclusion

The emerging technologies have dynamically changed the way information is gathered, organized, accessed, stored and consumed. E-resources are the need of the hour for research and academic activities and help in faster access and retrieval of information in various disciplines. Looking at the present situation of information explosion and competency in acquiring it, it is on the part of the library staff to create more awareness about the e-resource availability among the users and provide them a friendly environment so that they can make a better use of the facility. The staff in the library requires training in handling the e-resources and users need an orientation for using them. Library staff should be provided proper training, which will help them acquiring more sophisticated searching and retrieval skills. The librarians' role has to be redefined in view of technological developments keeping in mind the best interest of users and retrieval efficiency. Further there is a vast scope of future research in agriculture and engineering.

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