AWARE AND UTILIZE OF E- RESOURCES BY THE MEDICAL AND DENTAL STUDENTS OF THE AFFILIATED COLLEGES TO THE TAMIL NADU DR. M.G.R MEDICAL UNIVERSITY, CHENNAI

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Abstract

The Present study exposed the experience of the users and awareness of using several variety and types of electronic journals, standards, technical specifications, reports, patents, full-text articles, trade reports and hosts of others document sources are available on web. The paper explains the use of web resources of Electronic Resources in Medicine (e-journals and e-databases subscribed by ERMED consortium) by the students of the Tamil Nadu Dr. M.G.R Medical University; the study is based on questionnaire method. A questionnaire was distributed among the students of the affiliated colleges in Tamil Nadu Dr. M.G.R Medical University to collect desired data. Total 205 questionnaires were distributed to the selected sample for the year 2015-16, 189 valid samples were collected and analysed. The findings showed that majority of respondents noticeable that library subscribed useful online journals and databases for the medical community. The data scanned and preserved in document management software play an important role to access relevant information. Awareness among the users about the availability of online resources was found highly satisfactory. Online journals were mostly used for study and reference needs of the update knowledge similarly medical and dental discipline – based journals used widely.

Keywords: Web- Resources, Medical Sciences Libraries, e-journals, e-databases, Internet, user study.

Introduction

Web - Resources are measured the note of any library's collection and have become crucial for research in any field. Many electronic journals are available in the form of databases as well as being directly accessible through the World Wide Web. The quantity of e- journals is growing larger and has become a quite visible entity in serial publication. Bar-Ilan, J.; Bluma, C.Peritz & Wolman, Y.A[1] With information deluge; everyone needs information of increasing variety and diversity of level, frequency, volume, and ease. This complex situation appears to be ambiguous and heterogeneous as those information needs of particular groups of users and information flow from specific situations in organization are difficult to determine. This situation has given rise to the growth concept of information searching and the manner to determine the pattern of searching. Sedghi[2], *et al.* investigated the resources used by health-care professionals while searching for medical images of 29 health-care professionals from various health and biomedical departments working within Sheffield Teaching Hospitals NHS Foundation Trust. They confine that health-care professionals seek medical images in a variety of visual information sources, including those found online and from published medical literature. Scherrer, C.S. &

Jacobson[3], The authors of this paper invite further comments on this proposal. All health sciences librarian concerned with future of the profession have a stake in the outcome of these deliberations. The research also identified a number of difficulties that health-care professionals face when searching for medical images in various image resources.

Kanniyappan[4], *et al.* found out the use of different types of e-resources and services and their impact on the academic development of faculty members at Anna University library, Chennai. Findings indicate that the overall respondents use computers and online services. Majority of them use e -mail, internet, OPAC system and online journals. A good number of respondents feel that printed journals will not become obsolete in future. Most of the faculty members are aware of e -resources and they are being used frequently for the teaching purpose. Chowdappa[5], *et al.* depicts the extent of dependency of users of Educational and Research Institute of Mysore city on the electronic/digital media and tried to find out the impact of e -information resources on the academic community. The main objectives wss to know how information users rely upon books, journals, CDs and internet for their research and the opinion in the use of digital sources compared to the traditional sources.

The Tamil Nadu Dr. M.G.R Medical University

The Tamil Nadu Dr. M.G.R. Medical University is situated in Southern part of the City of Chennai (formerly Madras) in the State of Tamil Nadu, South India. It is one of the premier Medical Universities named after the former Chief Minister of Tamil Nadu, (late) Hon. Dr. M.G.Ramachandran (M.G.R) and it is the second largest Health Sciences University in India. This affiliating University governed by the said Act started functioning from July 1988. This is the only Medical University in Tamil Nadu capable of granting affiliation to new institutions under Government or Self-financing in Medical, Dental, Indian Medicine/Homoeopathy & Allied Health Sciences(Pharmacy, Nursing, Physiotherapy, Occupational therapy etc.) and awarding degrees under a single umbrella to maintain uniform and high standards of education. Until 1988, all degrees of Health Sciences were awarded by the University of Madras. The University also promotes research and disseminates knowledge gained there from. The University has been declared eligible by the UGC u/s 12(B) of the UGC Act 1956 for receiving central assistance.

Scope and Exposure

National Medical Library's Electronic Resources in Medicine Consortium and National Knowledge Network is an initiative taken by DGHS & MOHFW to develop nationwide electronic information resources in the field of medicine for delivering effective health care. The consortium will work under the guidance of the National Level Steering Committee and the National Level Finance Committee constituted after the approval of the competent authority. The ERMED Consortium provides access to over 2000 Journals from 9 Major Publishing Houses and includes some of the Best known Medical Journals available.

The Subject to be selected in the "By Subject" Option is "Health Sciences" and for areas like Biochemistry, Immunology, Genetics, Microbiology etc. the content is available in the "Life Sciences" Subject Heading. This access is provided Free of charge to the Faculty and the students.

Review of Related Literature

Web resources are significant part of study materials. The web resources are easy to utilise, speedy, reliable, and useful and effective. The study offers a way to identify the acceptance of web resources by the medical sciences students along with its advantages, performances, user's satisfaction and obstacles during the use.

Study of related literature implies locating; reacting and evaluating reports of research as well as report of casual observation and opinion that are related to the individuals planned research problems.

Asemi & Reyahiniya[6] conducted a survey on awareness and use of digital resources in the libraries of Isfahan University of Medical Science, Iran. Results indicate that majority of students are aware of digital resources available in university database and most of them do well to using the resources. The increasing amount of awareness of IT facilities will lead to an increased to the amount of resources.

Lal[7] , *et al*. studied uses of internet access by medical students and resident doctors of Maulana Azad Medical College (MAMC) and found that it has a lower cost as compared to paper- based dissemination of information and also has an added advantage of being available worldwide instantly on demand. Therefore, there is a need not only to equip medical fraternity with adequate skills for use of internet but also to make internet facility available in institutions providing medical education and health-care.

The commonly available EIS, namely, CD-ROM, online databases, online public access catalogues (OPAC), and the internet and other networked information sources are competing and in some instances replacing the print-based information sources. The EIS provide access to information that might be restricted to the user because of geographical location or finances. They also provide access to current information as these are often updated frequently[8]. Md. Sohail* and Andleeb Alvi[9] Use of Web Resources by Medical Science Students of Aligarh Muslim University, the paper also indicates that it is probably counter-productive to evaluate students as one group. Different segments of students have very different and varied use patterns of web resources depending on study topic, study year, psychological dispositions, and other demographic factors.

Objectives

The objectives of the study are to:
- Find out the user experience and perception of using of different types of e-resources by the students of medical and dental disciplines.
- Analysis the different purposes for which the EIS is used by the respondents;

- Find out the frequency and place of using web resources
- Identify the reliability of the web resources
- Identify the various techniques adopted to locate the web resources
- Find out the barriers while using web resources
- Identify which publishers' e- journals/e references are consulted by students
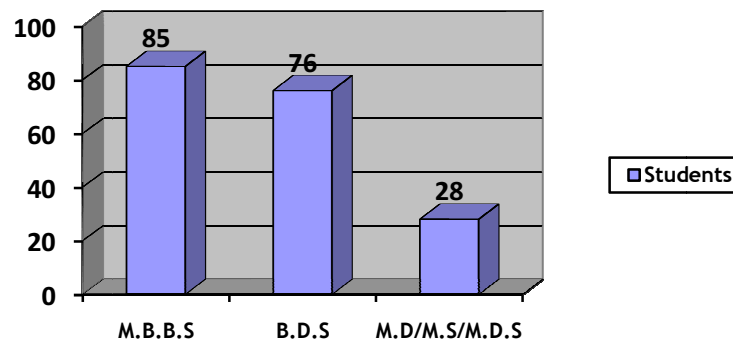
Methodology

The present study was conducted using questionnaire-based survey method along with observation and informal interviews. The questionnaire was pre-tested on 20 users which included the 2 groups; the U.G students and P.G students. A total number of 205 questionnaires were administered among the users of the Library and Information Centre, The Tamil Nadu Dr. M.G.R Medical University under study. Out of which, a total number of 189 filled in questionnaires were received and the overall response rate was 92.19 %. Hence, the entire 189 received responses were considered for the data analysis and interpretation. The questionnaire was personally distributed to the students at University library in the month of October 2015. The collected data have been organized and tabulated by using statistical method and the responses shown in percentage.

Data Analysis

The empirical evidence in the paper is data drawn from an extensive survey of students' uses patters of web resources in The Tamil Nadu Dr. M.G.R Medical University. Questions like name, gender and educational qualification were asked. It is evident from the data that students use the web resources, out of 205, 189 received responses, 42 % were male and 58 % were female. Out of 189 respondents 85 students were pursuing M.B.B.S, 76 students were pursuing B.D.S and 28 P.G students,

Survey Results

The status of respondents which includes 44.97% (85) M.B.B.S students, 40.21% (76) B.D.S students and 14.81% (28) M.D/M.S/M.D.S students, (Chart1).

Use of Library Services

The respondents were asked to mark the library services used at Library and Information Centre; Tamil Nadu Dr. MGR Medical University. The services provided by the Information Centre are depicted in Table 1. Of the population of Students of the medical and dental (100%) preferred accessing e-journals, Online databases, Internet facility, CD-ROM databases and the Scan / Xerox / Printout facility provided by the Tamil Nadu Dr.MGR Medical University.

Table 1: Use of Library Services

S.No	Library Services	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1	Study Purpose	59 (69.47%)	46 (60.52%)	18 (64.28%)
2	Reference Purpose	21 (24.70%)	25 (32.89%)	19 (67.85 %)
3	Lending Purpose	15 (17.64%)	11 (14.47%)	2 (7.14%)
4	Abstracting Service	6 (7.05%)	4 (5.26%)	4 (14.28%)
5	Indexing Service	8 (9.41%)	6 (7.89%)	14 (50%)
6	E-Journals	32 (37.64%)	23 (30.26%)	16 (57.14%)
7	Scan /Xerox/Printouts	26 (30.58%)	15 (19.73%)	8 (28.57%)
8	Internet facility	10 (11.76%)	21 (27.63%)	5 (17.85%)

Purpose of Using Web Resources

The respondents were asked to indicate the purpose for which they make use of web resources. The purposes have been classified into five categories as shown in. It was found that a total of 59 (69.47 %) M.B.B.S students use web resources for their study and research purpose, followed by 46 (60.52 %) of B.D.S students for the reference purpose. 18(64.28%) M.D/M.S/M.D.S students were used web resources for improving area of specialization and only 8(28.57 %) uses it for finding quick information.

Table 2: Purpose of Using Web Resources

S.No	Purpose of using web resources	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1	For Study & Research	59 (69.47%)	46 (60.52%)	14 (50%)
2	For improving area of specialization	17 (20%)	20 (26.31%)	18 (69.23%)
3	For improving knowledge	31 (36.47%)	29 (38.15%)	21 (80.76%)
4	Career Information	28 (32.94%)	33 (50%)	24(92.30%)
5	Finding quick information	23 (27.05%)	27 (35.52%)	8 (28.57%)

Frequency of Web Usage

The respondents were asked to indicate the frequency for which they make use of web resources. The purposes have been classified into four categories as shown in Table 3. It states that 14.12% M.B.B.S students use web resources occasionally. 18(69.23%) M.D/M.S/M.D.S student's use it daily.

Table 3: Frequency of Web Usage

S.No	Frequency	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1	Daily	21 (24.70 %)	19 (25 %)	18 (69.23 %)
2	Weekly	29 (34.11 %)	23 (30.26 %)	15 (53.57%)
3	Monthly	20 (23.52%)	16 (21.05%)	9 (32.14%)
4	Occasionally	12 (14.12 %)	11 (14.47%)	3 (10.71%)

Place of Using Web Resources

The respondents were asked to indicate the purpose for which they make use of web resources. The purposes have been classified into four categories as shown in Table 4, more than half of M.B.B.S students' (42.35%) were using web resources in Wi-fi area followed by 35.29 % library. Similarly, the M.D/M.S students use web resources 69.23 % in Central Library, followed by 33.31% any other places, followed by 19.07 %, in computer section.

Table 4: Place of Using Web Resources

S.No	Web resources access place	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1	Central library	30 (35.29 %)	29 (35.52%)	18 (69.23%)
2	Computer section	18 (21.17 %)	12 (15.78 %)	6 (21.43%)
3	Wi-Fi Area	36 (42.35 %)	33 (43.42%)	10 (35.31%)
4	Other place	20 (23.53 %)	18 (23.68 %)	10 (35.31%)

Reliability of Web Resources

Table 5 shows that 65 % M.B.B.S students found the web resources reliable, followed by 77.63% B.D.S students the web resources is reliable 11.76 % who were not sure of the reliability. The M.D/M.S/M.D.S students 89.28 % found web resources reliable. It can be concluded that 78.83 %) students find that the web resources as reliable, whereas 8.99 % of the users are not sure of the reliability of the web resources.

Table 5: Reliability of Web Resources

S.No	Web resources reliability	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1	Reliable	65 (76.47 %)	59 (77.63 %)	25 (89.28 %)
2	Unreliable	0	0	0
3	Not sure	10 (11.76 %)	6 (7.89 %)	1(3.57%)
4	Other	6 (7.05 %)	0	0

Barriers while Using Web Resources

Table 6 shows that 33 (38.82 %) M.B.B.S students face slow connectivity as barrier while using web resources, 29 (38.15 %) B.D.S students find as slow connectivity and the 9 (32.14%) M.D/M.S/M.D.S students also find slow connectivity. 3 (50 %) as barrier followed by 13.75 %) limited access to computer terminals. So it can be concluded that the higher percentage of students 37.56 % state that slow connectivity is a barrier in using web resources.

Table 6: Barriers While Using Web Resources

S.No.	Barriers	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1.	Too much information retrieved	16 (18.82 %)	15 (19.73 %)	3 (10.71%)
2.	Slow connectivity	33 (38.82 %)	29 (38.15 %)	9 (32.14%)
3.	Limited access to computer	10 (11.76%)	12 (15.78 %)	4 (14.28 %)
4.	Lack of IT knowledge	9 (10.58 %)	11 (14.47%)	2 (7.14%)

Preference of Using Search Engine

Table 7 shows that 42 (49.41 %) M.B.B.S students confirm that they prefer using search engine as Google, followed by 49 (64.47 %) B.D.S students using on Yahoo, followed by 26 (13.75 %) on MSN. 14 (50 %) M.D/M.S students preferred Google, followed by 4(14.28 %) on Yahoo, followed by 2 (7.14 %) on MSN. 4 (66.66 %) PG Diploma students preferred Google as well as Yahoo. So it can be concluded that the higher percentage of students 41 (61.19 %) use Google as search engine for their work.

Table 7: Preference of Using Web Resources

S. No.	Search Engine	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1.	Google	42 (49.41 %)	49 (64.47 %)	14 (50 %)
2.	Alta Vista	26 (30.58 %)	18 (23.68%)	8 (21.43%)
3.	MSN	12 (14.11%)	9 (11.84 %)	2 (7.14 %)
4.	Yahoo	10 (11.76 %)	12 (15.78 %)	4 (14.28 %)
5.	Other	6 (7.05 %)	6 (7.8%)	6 (21.42%)

Use of E-reference Sources

Table 8 shows that 43 (50.58 %) M.B.B.S students consulted Encyclopaedia as e-reference source, followed by 31(40.78%) B.D.S students are referred and Directory/Dictionary. 14 (50%) M.D/M.S/M.D.S students prefered Dictionary, followed by 12(42.853 %) - Encyclopaedia, 3(12.5 %) - Biography. 2(33.33 %) followed by 17.85% Indexing Journals. So it can be concluded that the higher percentage of students 45.5 % use encyclopaedia for e-references source as web resources.

Table 8: Use of e-reference sources

S. No.	E-reference sources	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1.	Encyclopaedia	43 (50.58%)	31 (40.78 %)	12 (42.85 %)
2.	Directory	22 (25.88 %)	23 (30.26%)	8 (28.57%)
3.	Dictionary	10 (11.76 %)	9 (11.84 %)	6 (21.42%)
4.	Biography	6 (7.05 %)	3 (2.19 %)	2 (7.14%)
5.	Indexing journal	10 (11.76 %)	9 (11.84 %)	5 (17.85 %)
6.	Abstracting journal	12 (14.11 %)	12 (15.78 %)	4 (14.28 %)

Use of E-journal Database

Table 9 shows that 30(35.29%) M.B.B.S students consulted Wiley e- journal database and followed by 32(42.10%) B.D.S students are consulted. Medline. 9 (32.14 %) M.D/M.S/M.D.S is consulted Wiley online data bases, followed by 6(21.42 %) Royal Society

on Medicine followed. So it can be concluded that the higher percentage of students 72 (38.09 %) consulted Wiley online & Medline publishers for e-journals.

Table 9: E-journal Database Consulted by Users

S. No.	E-journal publishers	M.B.B.S	B.D.S	M.D/M.S/M.D.S
1.	Wiley Online Library	30 (35.29 %)	32 (42.10 %)	10 (35.71 %)
2.	Royal Society of Medicine	18 (21.17 %)	22 (28.94 %)	6 (21.42%)
3.	Medline	22(25.88 %)	18 (23.68%)	9 (32.14%)
4.	Lippincott William Wilkins	15(17.64 %)	9 (11.84%)	4 (14.8%)
5.	American Academy of Pediatrics	5 (5.88 %)	3 (3.94%)	2 (7.14%)
6.	BMJ	10 (11.76 %)	12 (15.78%)	4 (14.8%)
7.	Cambridge University Press	2 (2.35 %)	0	1(3.57%)

Findings

1. 37.26 % medical and dental students use web resources for improving knowledge and 31.05% of students finding information quickly.
2. 78.83 % (149 students) find web resources as reliable.
3. 49.41 % Medical students search and access web resources links through Google search engines and 49 (64.47% of dental students search and access through Google search engines.
4. Slow speed is the major barrier while using web resources as indicated by medical students.
5. Google is the most preferred search engine followed by yahoo for searching web resources.
6. Most popular e-reference source used by the students (45.5%) are encyclopedias.

Conclusions

The use of web resources by the students of Tamil Nadu Dr. M.G.R Medical University shows 100 % of the students were aware of web resources and mostly make use of them. The objectives of the following study are satisfactorily met and most of the students are satisfied with the web services available to them. They use new means of technology for retrieving quick information. The web resources available on internet are used by user generally in Central Library and in other place, i.e., personal connection. Web contains a wide range of information and provides links to other resources. For searching web resources generally links through search engines is preferred over others. Web resources have become the important part of human life in the 21st century for their study and knowledge. Popular publishers of e-journals (consulted by them) are Wiley Online and Medline. So it can be said that the planning, developing, and extending the computer and internet facilities make them aware to information resources in new era.

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   Md. Sohail* and Andleeb Alvi, Use of Web Resources by Medical Science Students of Aligarh Muslim University, DESIDOC Journal of Library & Information Technology, Vol. 34, No. 2, March 2014, pp. 125-130.