



Awareness And Utilization Of E-Resources By Medical College Students: A Study Of Rajarajeshwari Medical College And Hospital

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Abstract- This study explores the awareness and utilization of electronic resources (e-resources) among students at Rajarajeshwari Medical College and Hospital. The research investigates the extent to which medical students are aware of available e-resources and how effectively they utilize these resources for their academic and research needs. Key aspects examined include the students' familiarity with e-resources, their preferences between electronic and traditional print resources, and the factors influencing their choice. Additionally, the study evaluates the adequacy of support and training provided by the institution in enhancing students' utilization of e-resources. The findings highlight the importance of e-resources in medical education and suggest strategies to optimize their accessibility and utilization within the academic environment.

Keywords: Rajarajeshawari Medical College, E-resources, Information and communication Technology, Utilization analysis.

1.0 Introduction:

Libraries today have undergone a profound transformation due to advancements in information and communication technology (ICT). They have evolved into digital, virtual, or hybrid forms, driven by the availability of electronic resources. Initially, libraries shifted from traditional acquisition methods to accommodate e-books, e-journals, and e-magazines, converting many print materials into digital formats. These digital resources now play a critical role in education and research across various industries, including healthcare.

In the realm of medical education and research, access to current and comprehensive resources is essential for staying abreast of developments. The study aims to assess how medical colleges utilize library resources in this context. Given the vital role of health in societal well-being and economic development, the availability of healthcare facilities and research resources significantly impacts a nation's progress. Thus, maintaining access to up-to-date materials is crucial for advancing medical research and knowledge.

1.1 About Rajarajeshwari Medical College Library:

Rajarajeshwari Medical College and Hospital (RRMCH) was established in 2005 under the aegis of the Moogambigai Charitable and Educational Trust. Located on Mysore Road, Bangalore, RRMCH is dedicated to becoming a distinguished educational institution in various disciplines including Engineering, Medicine, Dental, Paramedical, Management, and other sciences. It provides specialized infrastructure for addressing health-related issues and aims to excel in the field of medical education and healthcare.

The Central Library spans an area of approximately 1200 square meters and houses a collection of over 22,000 books covering various subjects in medical and allied health sciences. In addition to these books, reputable journals from both Indian and international sources are available in the departmental libraries. Overall, the combined collection across the central and departmental libraries includes 22,773 books, 77 printed journals, 4725 e-journals, 3711 bound volumes, and 521 CD-ROMs.

To enhance accessibility, the library offers computerized catalogues of its holdings and maintains a card index for students. Advanced technologies such as barcode and Online Public Access Catalogue (OPAC) systems are also available, ensuring a user-friendly interface for quick and efficient searches by students and faculty alike.

2.0 Review of literature:

Akinbo, O. T., & Omidoyi, D. A. (2022). This study looks into undergraduate pharmacy students' knowledge of and use of electronic information resources (EIRs). Email and electronic dictionaries/encyclopedias were found to be easily accessible, and EIRs were primarily utilized for assignments and lab experiments. Daily usage of e-books, e-mails, and e-dictionaries/encyclopedias was common, although power outages and poor technology infrastructure were noted as limitations. The study highlights the significance of use and related difficulties in order to guarantee effective utilization, since these resources—especially the Internet and e-journals—are essential for undergraduates to obtain information in university libraries.

Jagadish M.V. (2020). This study indicates "Information and Communication Technology (ICT) plays a pivotal role in the dissemination of knowledge. Electronic resources, such as online journals, e-books, e-databases, and e-reports, have become indispensable tools in the learning process. This paper employs a survey methodology with questionnaires to examine the awareness and utilization of e-resources among college students. The primary focus of this study is to explore students' awareness, frequency of use, purpose, motivations, and challenges encountered when accessing e-resources for their informational needs. The study's key finding underscores that mobile phones are the most preferred device for accessing e-resources."

3.0 Objectives of the Study:

1. To know the awareness among the students about various e-resources offered by the Rajarajeshwari medical college and Hospital in Bangalore.
2. To analyze the most frequently used medical E -Resources by the respondents under study.
3. To understand the most influencing factors for maximum utilization of medical information resources among the respondents.
4. To find out the various problems faced by the students while accessing E-Resources.
5. To suggest measures to improve the existing facilities and services to achieve user satisfaction.

4.0 Methodology:

Primary data will be collected using a well-structured questionnaire through the survey method of research. The questionnaires will be distributed to students of Rajarajeshwari Medical College and Hospital in Bangalore. Out of 125 questionnaires distributed, 110 comprehensive responses were collected, indicating thoughtful engagement from the participants.

5.0 Scope and Limitations of the study:

The scope of the study is to investigate and identify the awareness and use of electronic resources by the students of Rajarajeshwari Medical College, Bangalore. The study is confined to students only. Moreover the study is conducted based on primary data.

6.0 Data Collection and Interpretation:

The current research work is based on the field investigation with the survey method. The primary data collected from using questionnaire is analyzed in this chapter by constructing table, graphs and by percentage analysis.

6.1 Distribution of Questionnaire and rate of response

Table- 1 Distribution of Questionnaire and rate of response

Respondents	Questionnaire responses		Percentage
	Distributed	Received	
Students	125	110	88%

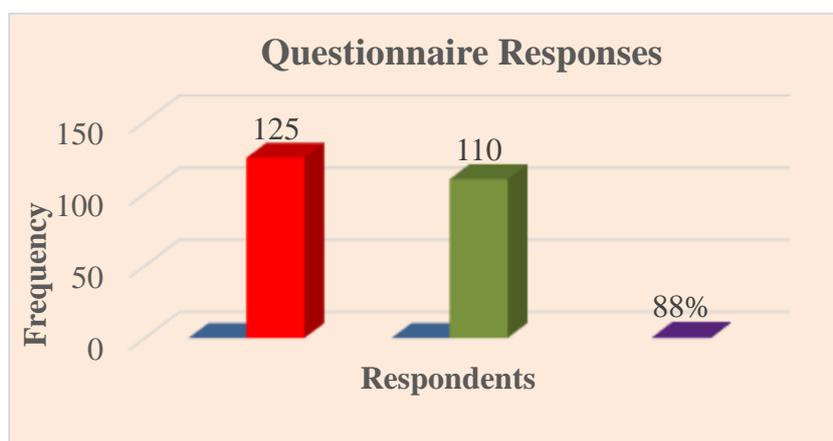
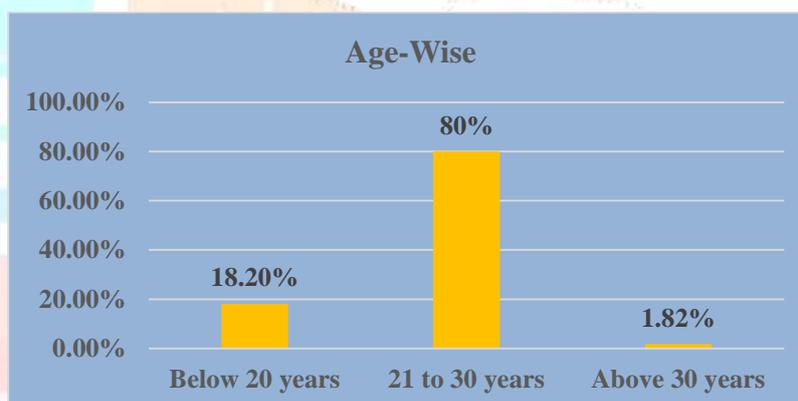


Table - 1 shows the data for the study is obtained by using Questionnaire method. Initially 125 questionnaires were distributed to the college and at final 110 questionnaires were finalized for the study. The rate of response is 88%. The remaining 12% of the questionnaire were discarded from the study due to more of missing values, incomplete information and unreliable responses. Hence the preliminary level of data cleaning was done and 88% of responses were which are reliable and valid are considered for the study.

6.2 Distribution of Respondents by Age

Table -2 Distribution of Respondents by Age

Age of Respondents	Frequency	Percent
Below 20 years	20	18.2%
21 to 30 years	88	80.0%
Above 30 years	2	1.82%
Total	110	100.0%

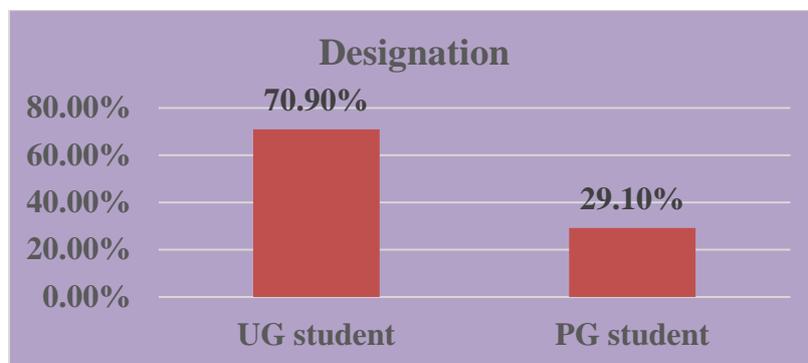


The Table 2 represents the number of respondents in terms of age wise. Since the respondents are students at medical college, the 18.2% of the respondents are fall in the age group of below 20 years. 80.0% of the respondents are fall in the age group of 21 to 30 years and 1.82% of the respondents are fall in the age group of above 30 years.

6.3 Respondents in terms of Designation

Table No- 3 Respondents in terms of Designation

Respondents	Frequency	Percent
UG student	78	70.9%
PG student	32	29.1%
Total	110	100.0%



The Table 3 represents the sample in terms of their education qualification. The stated medical college of the present study is consisting both under graduate and post graduate students. 70.9% of the sample observations are UG students and 29.1% of the sample observations are PG students.

6.4 Membership in the College Library

Table No- 4 Membership in the College Library

Membership	Frequency	Percent
Yes	99	90%
No	11	10%
Total	110	100%

Table 4 represents the membership of the samples of the study in college library. Out of 110 samples, 99 respondents are members of college library. 11 respondents are not the members of college library.

6.5 Preferred Resources

Table No-5 Preferred Resources

Resources Preferred	Frequency	Percent
Print resources	9	8.2%
Electronic resources	12	10.9%
Both print and electronic	89	80.9%
Total	110	100%

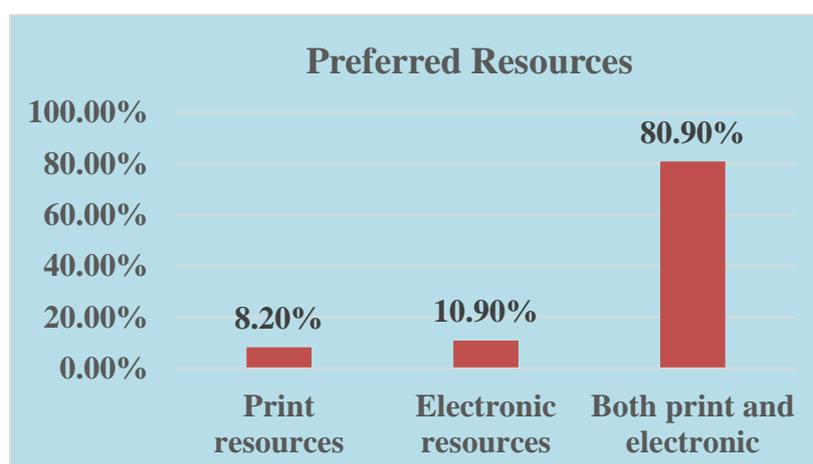


Table 5 represents the preferred resources from respondents. Out of 110 samples, 8.2% respondents preferred print resources, 10.9% respondents preferred electronic resources and 80.9% respondents preferred both print and electronic resources.

6.6 Awareness of Library facilities

Table No- 6 Awareness of Library facilities

Awareness of Library Facilities	Yes		No	
	Frequency	%	Frequency	%
OPAC	108	98.2%	2	1.8%
E-Mail	108	98.2%	2	1.8%
Internet	110	100%	0	0%
CD-ROM browsing	105	95.5%	5	4.5%
Photocopying	101	91.8%	9	8.2%

Table 6 shows the awareness of facilities to the respondent. Out of 110 respondents 98.2% of the respondents are aware of OPAC. Similarly, 98.2%, 100%, 95.5% and 91.8% of the respondents are aware of E-Mail, Internet, CD-ROM browsing and photocopying facilities respectively.

6.7 Awareness of Medical E-Resources

Table No- 7 Awareness of Medical E-Resources

Medical Resources	Fully Aware	Aware	Neither Aware	Not Aware	Fully Not Aware
MEDLINE	107 (97%)	03 (2.7%)	00 (00%)	00 (00%)	00 (00%)
Springer link	101 (91.8%)	03 (2.7%)	06 (5.5%)	00 (00%)	00 (00%)
Pubmed	99 (90.0%)	02 (1.8%)	07 (6.4%)	01 (1.0%)	01 (1.0%)
Science Direct	99 (90.0%)	05 (4.5%)	06 (5.5%)	00 (00%)	00 (00%)
Global Health	29 (26.4%)	13 (11.8%)	20 (18.2%)	04 (3.6%)	44(40.0%)
Biosis Previews	11 (10.0%)	17 (15.5%)	19 (17.3%)	04 (3.6%)	59 (53.6%)
Proquest	82 (74.5%)	09 (8.2%)	11 (10.0%)	02 (1.8%)	06 (5.5%)

Clinical Evidence	07 (6.4%)	19 (17.3%)	34 (30.9%)	09 (8.2%)	41 (37.3%)
BioMed Central	05 (4.5%)	25 (22.7%)	22 (20.0%)	09 (8.2%)	49 (44.5%)
DOAJ Database	11 (10.0%)	37 (33.6%)	32 (29.1%)	08 (7.3%)	22 (20.0%)
EBSCO Host	06 (5.5%)	15 (13.6%)	20 (18.2%)	13 (11.8%)	56 (50.9%)

Table 7 shows the majority of respondents were highly aware of MEDLINE, with 97.3% indicating that they were Fully aware and 2.7% only Aware. Similarly, awareness of Springer Link was quite high, with 91.8% Fully aware, 2.7% aware. awareness of Pubmed with 90.0% were Fully aware, 1.8% aware. awareness Science Direct with 90.0% fully aware, 4.5% were aware. Compare to the fully awareness and not awareness about e-resources by respondents 53.6% of respondents they not aware Biosis Previews, 50.9% of respondents not aware EBSCO Host.44.5% of respondents also not aware BioMed Central. These findings reveal varying levels of awareness among respondents across different medical resources.

6.8 Usage of E-Resources

Table No-8 Usage of E-Resources

Medical Resources	Always	Often	Sometimes	Rarely	Never
MEDLINE	108 (98.2%)	00 (00%)	02 (1.8%)	00 (00%)	00 (00%)
Springer link	99 (90%)	03 (2.7%)	08 (7.3%)	00 (00%)	00 (00%)
Pubmed	95 (86.4%)	05 (4.5%)	08 (7.3%)	00 (00%)	02 (1.8%)
Science Direct	91 (82.7%)	05(4.5%)	02(1.8%)	05(4.5%)	07(6.4%)
Global Health	28 (25.5%)	15 (13.6%)	27 (24.5%)	04 (3.6%)	36 (32.7%)
Biosis Previews	07 (6.4%)	12 (10.9%)	18 (16.4%)	23 (20.9%)	50 (45.5%)

Proquest	68 (61.8%)	11 (10%)	10 (9.1%)	07 (6.4%)	14 (12.7%)
Clinical Evidence	06 (5.5%)	16 (14.5%)	17 (15.5%)	09 (8.2%)	62 (56.4%)
BioMed Central	08 (7.3%)	20 (18.2%)	37 (33.6%)	08 (7.3%)	37 (33.6%)
DOAJ Database	14 (12.7%)	29 (26.4%)	22 (20%)	13 (11.8%)	32 (29.1%)
EBSCO Host	12 (10.9%)	22 (20%)	24 (21.8%)	09 (8.2%)	43 (39.1%)

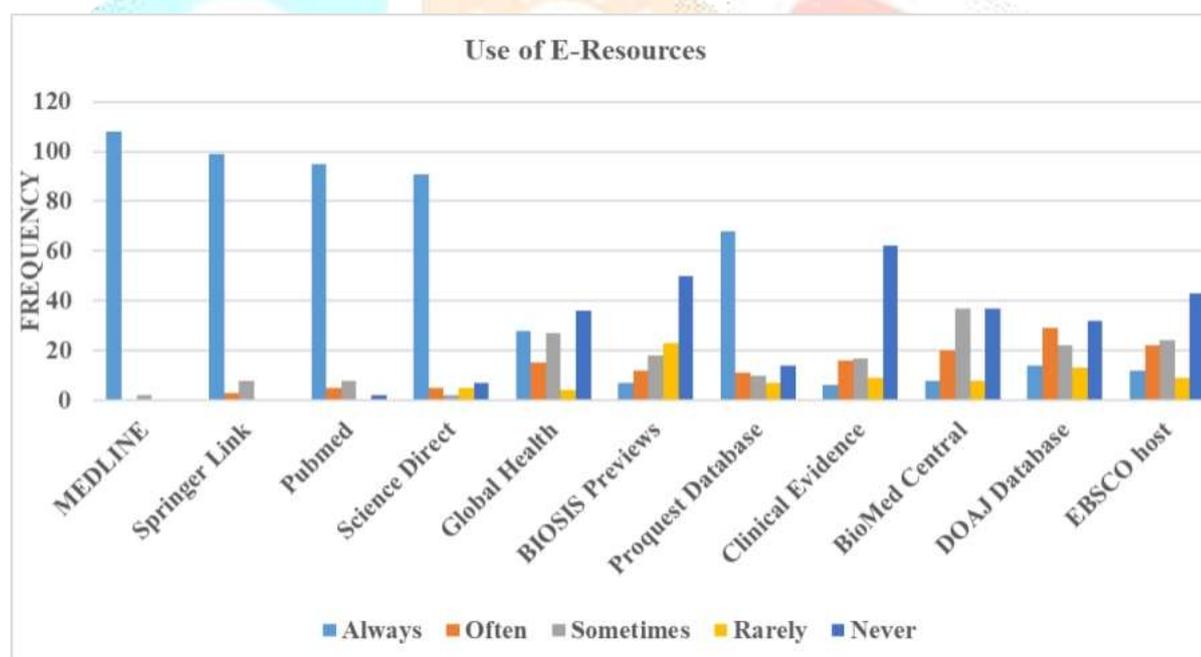


Table 8 shows the usage of various medical resources among a total of 110 respondents. the majority of respondents highly use MEDLINE, with 98.2% indicating that they always use it. Similarly, the usage of Springer Link is quite high, with 90% always using it, 2.7% using it often, and 7.3% using it sometimes. In the case of PubMed, a substantial 86.4% always use it, according to the use of e-resources by respondents 56.4% were never use Clinical Evidence, 45.5% respondents never use Biosis Previews and 39.1% respondents also never use EBSCO Host.

6.9 Purpose of Use E-Resources

Table No 9 Purpose of Use E-Resources

Purpose of using E-resources	Yes		No		Total	
	Frequency	%	Frequency	%	Frequency	%
Preparing for Exams	109	99.1%	1	0.9%	110	100%
To update knowledge	110	100%	0	0%	110	100%
Research purpose	99	90%	11	10%	110	100%
Preparing seminars	99	90%	11	10%	110	100%

Table 9 shows the purpose of using e-resources. The students of RR Medical College use e-resources for many different purposes. Out of 110 respondents about 109(99.1%) of the respondents use e-resources for preparing for Exams. 110(100%) use e-resources to update knowledge and followed by the 99(90%) use e-resources to research purpose.

6.10 Sufficiency of E-Resources at library

Table No 10 Sufficiency of E-Resources at library

Sufficiency of E-Resources	Frequency	Percent
Yes	108	98.0%
No	02	2.0%
Total	110	100%

Table 10 represents the information on sufficiency of E-Resources at Library. Out of 110 respondents, 98.0% of respondents are stating that the E-Resources at library is sufficient.

6.11 Barriers while using E-Resources

Table No 11 Barriers while using E-Resources

Barriers	Strongly Agree	Agree	Sometimes	Disagree	Strongly Disagree
Low speed of internet	20 (18.2%)	02 (1.8%)	02 (1.8%)	24 (21.8%)	62 (56.4%)
Information overload	64 (58.2%)	17(6.4%)	06 (5.5%)	18 (16.4%)	05 (4.5%)
Lack of awareness	19 (17.3%)	10 (9.1%)	21 (19.1%)	43 (39.1%)	17 (15.5%)
Lack of printing facility	22 (20%)	09 (8.2%)	24 (21.8%)	16 (14.5%)	39 (35.5%)
Not available full text	03 (2.7%)	07 (6.4%)	25(22.7%)	49(44.5%)	26(23.6%)

Table 11 represents the barriers while accessing the e-resources. Out of 110 respondents, 18.2% were strongly agree, 1.8% were Agree and sometimes, 21.8% were Disagree and 56.4% strongly disagree of low speed of internet followed by the 58.2% were strongly agree, 15.5% were Agree, 5.5% were sometimes, 16.4% were Disagree and 4.5% of Strongly disagree of Information overload followed by 17.3% strongly disagree, 9.1% were Agree, 19.1% were sometimes, 39.1% were Disagree and 15.5% of Strongly disagree of Lack of awareness followed by the 20% were strongly agree, 8.2% were Agree, 21.8% were sometimes, 14.5% were Disagree and 35.5% of Strongly disagree of Lack of printing facilities followed by the 2.7% were strongly agree, 6.4% were Agree, 22.7% were sometimes, 44.5% were Disagree and 23.6% of Strongly disagree of Not available of full-text respectively.

7. Findings & Suggestions:

1. The initial number of sample is 125 and the final sample size of 110 is drawn from the Rajarajeshwari medical college with the rate of response is 88%.
2. The respondents are students at medical college pursuing UG and PG courses, 80.0% of the respondents are falls in the age group of 21 to 30 years and 1.82% of the respondents are falls in the age group of 30 and above.
3. 70.9% of the sample observations are UG students and 29.1 % of the sample observations are PG students, hence study has more of UG students.
4. Out of 110 samples, 90% of the respondents are members to the college library and 10% of the respondents are non-members to the college library.
5. Out of 110 samples, 8.2% of the respondents preferred print resources, 10.9% of the respondents preferred electronic resources and 80.9% respondents preferred both print and electronic resources.
6. Out of 110 respondents, 98.2% of the respondents are aware of OPAC. Similarly, 98.2% respondents are aware about E-mail, 100% respondents are aware of internet, 95.5% respondents are aware of CD-ROM browsing and 91.8% respondents are aware of photocopying facilities respectively.
7. The majority of respondents were highly aware of MEDLINE, with 97.3% indicating that they were always aware about e-resources but 53.6% of respondents they not aware Biosis Previews, 50.9% of respondents not aware EBSCO Host. 44.5% of respondents also not aware BioMed Central.
8. majority of respondents highly use MEDLINE, with 98.2% indicating that they always use it and 56.4% of respondents were never use Clinical Evidence, 45.5% respondents never use Biosis Previews and 39.1% respondents also never use EBSCO Host.
9. Out of 110 respondents, 98.0% of respondents are stating that the E-Resources at library is sufficient.

7.1 Suggestions:

1. Since majority of respondents are library members with only moderate awareness of Medical E-Resources, it's crucial to introduce an orientation program in the medical college's library to raise awareness about these resources.
2. The Librarians could adopt a collaborative effort with Faculty members in organizing training on the use of electronic resources and specialized databases for students across all the departments in the College.
3. The institution should organize seminars, workshops and orientation programmes for students at regular interval of time to keep them pace with latest technologies.

8. Conclusion:

This study examined the awareness and utilization of E-resources among students at Rajarajeshwari Medical College and Hospital. It found a generally high awareness of E-resources, but varying levels of utilization across different student demographics. Factors like courses, gender, and college affiliation showed minimal influence on usage patterns, suggesting a need for targeted strategies to promote more uniform E-resource utilization.

The study highlighted disparities in the distribution and accessibility of E-resources within the institution, emphasizing the importance of addressing these gaps to ensure fair access to digital learning materials for all students. Implementing effective educational programs and enhancing technological infrastructure, including improved access to Online Public Access Catalogue (OPAC) systems, could enhance E-resource utilization.

Looking ahead, continuous monitoring of E-resource usage trends will be crucial for adapting strategies that foster student engagement and academic achievement. By prioritizing these efforts, Rajarajeshwari Medical College and Hospital can better support students in leveraging digital resources for their educational and professional growth in the medical field.

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