

E-RESOURCES UTILIZATION PATTERN BY THE USERS OF SELECTED MEDICAL COLLEGE LIBRARIES IN CHENGALPATTU DISTRICT

Sasikumar, M

Research Scholar, Department of Library and Information Science,
Annamalai University, e-mail: smslib80@gmail.com

Sathiyamurthy, M G

Assistant Professor, Department of Library and Information Science,
Annamalai University, e-mail: sathyam.mg@gmail.com

Abstract

Electronic resources have become indispensable to medical education, clinical practice, and biomedical research, and academic health sciences libraries increasingly measure their relevance by how effectively users exploit these resources. The study examines the utilization pattern of e-resources among users of six selected medical college libraries in Chengalpattu District, Tamil Nadu, namely SRM Medical College Hospital & Research Centre, Shri Sathya Sai Medical College and Research Institute, Government Chengalpattu Medical College Hospital, Melmaruvathur Aathiparasakthi Institute of Medical Sciences and Research, Chettinad Hospital and Research Institute, and Bhaarat Medical College & Hospital. A structured questionnaire was distributed to 250 users at each institution (1,500 in total), of which 1,397 usable responses were received, yielding an overall response rate of 93.13 per cent. The sample comprised 714 male (51.11%) and 683 female (48.89%) respondents, fairly evenly distributed across the six institutions. The study investigated respondents' awareness of available e-resources, purpose and frequency of use, preferred resource types and platforms, search skills, infrastructural support, barriers encountered, and overall satisfaction. Findings indicate that while awareness of institutionally subscribed e-resources and consortia such as HELINET is fairly widespread, actual utilization is uneven across user categories and is shaped by factors such as infrastructural constraints, information literacy skill levels, and time pressures associated with clinical duties. The study discusses these patterns and offers recommendations for enhancing e-resource promotion, user training, and infrastructure to improve utilization among medical college library users.

Keywords: E-resources, utilization pattern, medical college libraries, health sciences libraries, Chengalpattu District, user studies, academic libraries, Tamil Nadu

1. Introduction

The proliferation of electronic information sources has fundamentally reshaped how medical students, faculty, researchers, and clinicians access, retrieve, and apply knowledge. E-journals, e-books, bibliographic and full-text databases, clinical decision-support tools, and open-access repositories now sit alongside and in many respects have superseded print collections as the primary means of scholarly and clinical information seeking. For medical college libraries in particular, e-resources offer the currency, searchability, and point-of-care accessibility that print

collections cannot match, making their effective utilization a matter of direct relevance to the quality of medical education and patient care.

In Tamil Nadu, consortia arrangements such as HELINET (Health Sciences Library and Information Network) have expanded formal access to a wide range of subscribed databases and full-text platforms for medical institutions. However, the mere availability of e-resources does not guarantee their effective use; utilization depends on user awareness, search competence, institutional infrastructure, and the perceived relevance of resources to academic and clinical needs. Chengalpattu District, with its cluster of medical colleges serving a large student and clinical population, provides a useful setting in which to examine these dynamics across institutions of differing type and vintage. The study was undertaken to assess the extent and pattern of e-resource utilization among users of six medical college libraries in Chengalpattu District, with a view to identifying gaps in awareness, use, and satisfaction that could inform library planning and policy.

2. Need For the study

Medical education today is heavily dependent on current, evidence-based information, and the pace at which medical knowledge is generated makes print collections alone insufficient for the needs of students, faculty, and researchers. E-resources including e-journals, e-books, online databases, HELINET/consortia subscriptions, and clinical decision-support tools. Chengalpattu District has emerged as a significant hub for medical education in Tamil Nadu, hosting a cluster of medical colleges of varying vintage, affiliation, and management. Several gaps make this study necessary:

- Most existing user studies on e-resources focus on general academic or engineering libraries, or on single medical institutions, leaving a gap in multi-institutional, district-level comparative data for medical college libraries specifically.
- Little is known about the differential patterns of e-resource use across the range of user categories within a medical college (undergraduate/postgraduate students, faculty, research scholars) and across institutions of different type and size within the same district.
- The COVID-19 pandemic altered information-seeking behaviour markedly, accelerating dependence on remote and electronic access; post-pandemic patterns of e-resource use in medical libraries in this region remain under-documented.
- Understanding the barriers actually faced by users (technical, skill-related, infrastructural, or awareness-related) is essential to improving return on the substantial financial investment made in e-resource subscriptions.

A systematic user study covering multiple medical college libraries in Chengalpattu District would therefore fill an important gap in the literature and provide actionable insights for library professionals, institutional administrators, and policy-makers concerned with strengthening health sciences information services.

3. Objectives of the Study

1. Assess users' awareness of e-resources available through their medical college libraries.
2. Examine the purpose and frequency with which e-resources are used.

3. Identify the types and platforms of e-resources most preferred by users.
4. Evaluate users' search strategies and information-retrieval skills.
5. Measure user satisfaction with available e-resources and library support services.
6. Suggest measures for improving e-resource utilization among medical college library users.

4. Review of Literature

Mahalakshmi (2024), in a case study of Stella Maris College, Chennai, examining users' satisfaction with library information resources, services, and facilities, found that the primary purposes for which students visited the library were borrowing books, seeking assignment-related help, and studying in a quiet environment, with the findings intended to help the college library formulate more effective strategies for improved service delivery. Ch.Srinivasa Rao and Sivaraman P made a study on user perception and opinion on Engineering College students in Telengana State and found that 34.69% of the respondents are using their libraries less than one hour due to technological development of libraries like remote access and so on. The study explores majority of the Respondents 32.57% using their library for the purpose of preparing their examination and 32.1% of the respondents opined their library is comfortable environment when they are studying. Natarajan, Suresh, Sivaraman and Sevukan (2010) studied the use and user perception of electronic resources at Annamalai University. They found that e-resources were used very rarely, even though the university had plenty of them, mainly because of lack of awareness, lack of time and limited subject coverage. This is close to your own finding that awareness of specific databases and drug resources needs to be raised through user orientation and training. Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Made a study on Understanding the role of digital technologies in education: A review. The review established that academic level is closely associated with patterns of e-resource use, and that preferences for resource formats vary based on ease of use, relevance, and timeliness of information. Ali, O., et al. (2024). Surveyed an artificial intelligence applications in educational settings: Challenges and strategies. This work informs the argument that the level of awareness and exposure of e-resources among user groups is crucial in identifying knowledge gaps that affect overall resource utilization.

5. Research Design and Population

The study adopted a descriptive survey design. The population comprised students, affiliated with six medical colleges in Chengalpattu District, Tamil Nadu: SRM Medical College Hospital & Research Centre, Shri Sathya Sai Medical College and Research Institute, Government Chengalpattu Medical College Hospital, Melmaruvathur Aathiparasakthi Institute of Medical Sciences and Research, Chettinad Hospital and Research Institute, and Bharat Medical College & Hospital.

6. Sampling and Data Collection

A structured questionnaire, organized into sections covering demographic details, awareness, purpose and frequency of use, resource-type preferences, search strategies and skills, infrastructure, barriers, and satisfaction, was distributed to 250 respondents at each of the six institutions (1,500 questionnaires in total). Usable responses were received as follows:

Medical College	Distributed	Received	Response Rate
-----------------	-------------	----------	---------------

**E-RESOURCES UTILIZATION PATTERN BY THE USERS OF SELECTED MEDICAL COLLEGE LIBRARIES IN
CHENGALPATTU DISTRICT**

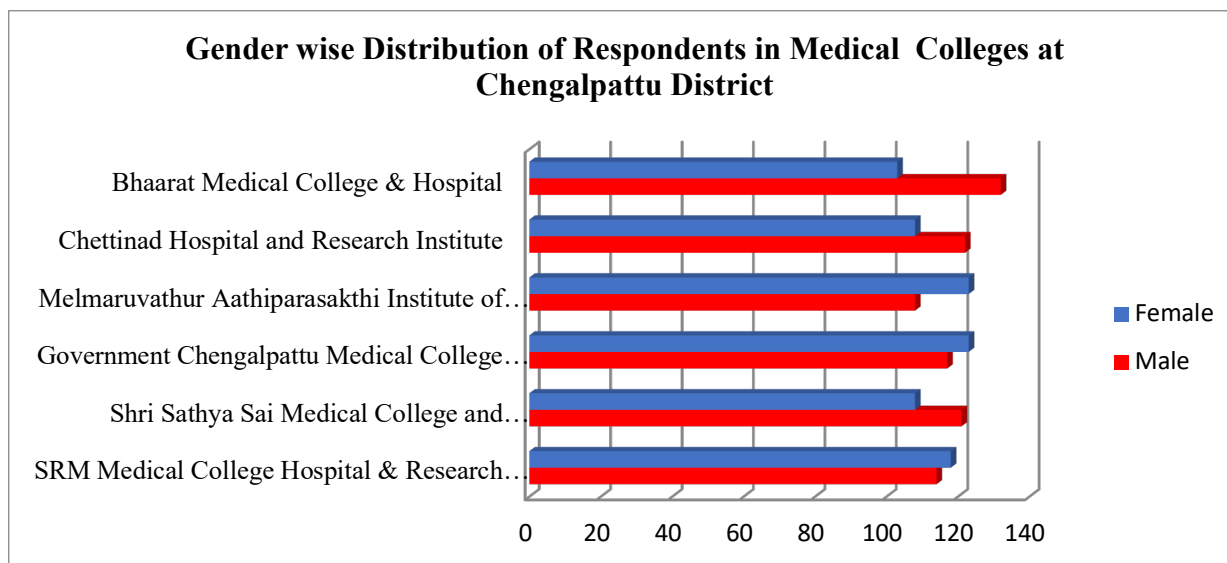
SRM Medical College Hospital & Research Centre	250	232	92.8%
Shri Sathya Sai Medical College and Research Institute	250	229	91.6%
Government Chengalpattu Medical College Hospital	250	240	96.0%
Melmaruvathur Aathiparasakthi Institute of Medical Sciences and Research	250	231	92.4%
Chettinad Hospital and Research Institute	250	230	92.0%
Bhaarat Medical College & Hospital	250	235	94.0%
Total	1,500	1,397	93.13%

7. Analysis and Interpretation

Responses were coded and analyzed using descriptive statistical techniques (frequencies and percentages) to identify utilization patterns across the sample as a whole and across individual institutions.

**Table 7.1: Gender-wise Distribution of Respondents in the Medical Colleges at
Chengalpattu District**

.Medical College	Male	%	Female	%	Total	%
SRM Medical College Hospital & Research Centre	114	49.14	118	50.86	232	16.61
Shri Sathya Sai Medical College and Research Institute	121	52.84	108	47.16	229	16.39
Government Chengalpattu Medical College Hospital	117	48.75	123	51.25	240	17.18
Melmaruvathur Aathiparasakthi Institute of Medical Sciences and Research	108	46.75	123	53.25	231	16.54
Chettinad Hospital and Research Institute	122	53.04	108	46.96	230	16.46
Bhaarat Medical College & Hospital	132	56.17	103	43.83	235	16.82
Total	714	51.11	683	48.89	1,397	100.00



7.1. Gender-wise Distribution of Respondents in the Medical Colleges at Chengalpattu District

The table one explores that among the college level, male respondents formed the majority in Bhaarat Medical College & Hospital (56.17%), Chettinad Hospital and Research Institute (53.04%) and Shri Sathya Sai Medical College and Research Institute (52.84%). Female respondents formed the majority in Melmaruvathur Aathiparasakthi Institute of Medical Sciences and Research (53.25%), Government Chengalpattu Medical College Hospital (51.25%) and SRM Medical College Hospital & Research Centre (50.86%). The widest gender gap is at Bhaarat Medical College (about 12 percentage points), while SRM and Government Chengalpattu are the most balanced, with gaps of about 2.5 points or less.

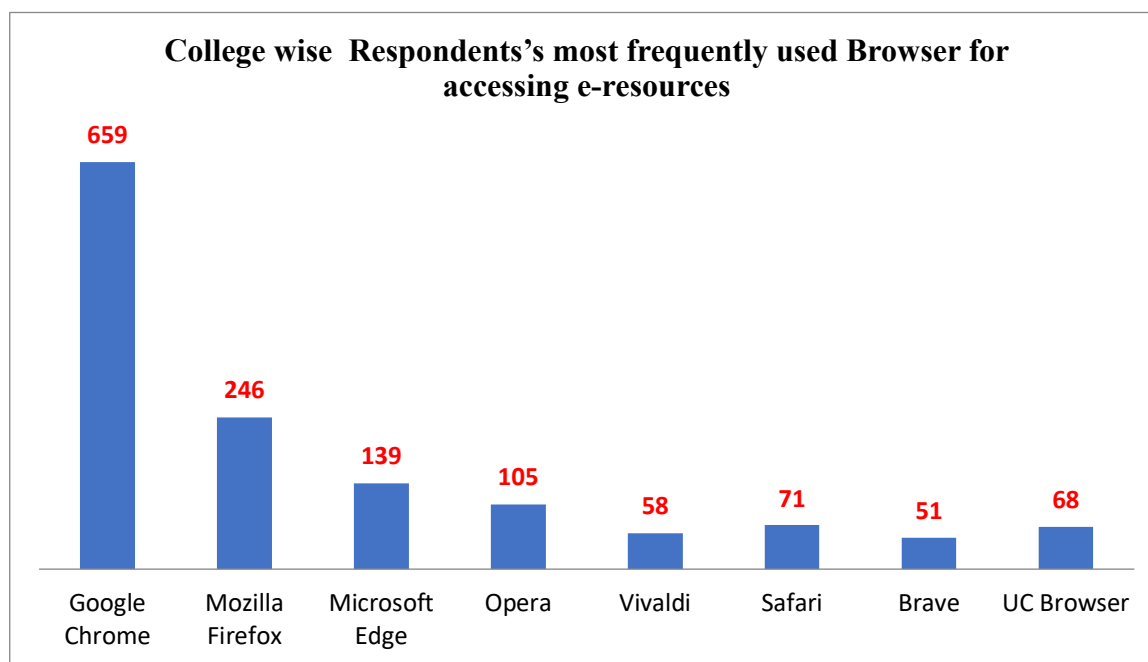
The table concluded that the gender-wise distribution of the 1,397 respondents drawn from six medical colleges in Chengalpattu District. Of these, 714 (51.11%) were male and 683 (48.89%) were female. The gap is only about two percentage points, so the sample is almost evenly balanced, and neither gender dominates the findings on the access and use of e-resources.

Table 7.2: College-wise Distribution of Respondents by Most Frequently Used Browser for Accessing E-Resources

Sl N	Browser	SRM College (232)	Sri Sathya Sai College (229)	Chengal pattu Med. College (240)	Aathipa rasakthi Med. College (231)	Chettin ad College (230)	Bhaarat Med. College (235)	Total
1	Google Chrome	84 (36.21)	135 (58.95)	95 (39.58)	130 (56.28)	110 (47.83)	105 (44.68)	659 (47.17)
2	Mozilla Firefox	37 (15.95)	41 (17.90)	39 (16.25)	51 (22.08)	37 (16.09)	41 (17.45)	246 (17.61)
3	Microsoft Edge	17 (7.33)	22 (9.61)	31 (12.92)	23 (9.96)	25 (10.87)	21 (8.94)	139 (9.95)

E-RESOURCES UTILIZATION PATTERN BY THE USERS OF SELECTED MEDICAL COLLEGE LIBRARIES IN CHENGALPATTU DISTRICT

4	Opera	18 (7.76)	20 (8.73)	12 (5.00)	18 (7.79)	21 (9.13)	16 (6.81)	105 (7.52)
5	Vivaldi	10 (4.31)	10 (4.37)	9 (3.75)	8 (3.46)	10 (4.35)	11 (4.68)	58 (4.15)
6	Safari	12 (5.17)	15 (6.55)	11 (4.58)	10 (4.33)	12 (5.22)	11 (4.68)	71 (5.08)
7	Brave	9 (3.88)	8 (3.49)	9 (3.75)	9 (3.90)	10 (4.35)	6 (2.55)	51 (3.65)
8	UC Browser	12 (5.17)	11 (4.80)	10 (4.17)	16 (6.93)	9 (3.91)	10 (4.26)	68 (4.87)
	Total stated	232 (100)	229 (100)	240 (100)	231 (100)	230 (100)	235 (100)	1,397 (100)



7.2. College wise Respondents' most frequently used Browser for accessing e-resources.

The table 7.2 presents the college-wise distribution of respondents according to the browser most frequently used for accessing e-resources. The data show that Google Chrome is the most frequently used browser overall, accounting for 659 respondents (47.17%) of the total 1,397 respondents.

College-wise, Google Chrome usage is highest among respondents of Sri Sathya Sai College, with 135 respondents (58.95%), followed by Aathiparasakthi Medical College, with 130 respondents (56.28%). It is followed by Chettinad College with 110 respondents (47.83%),

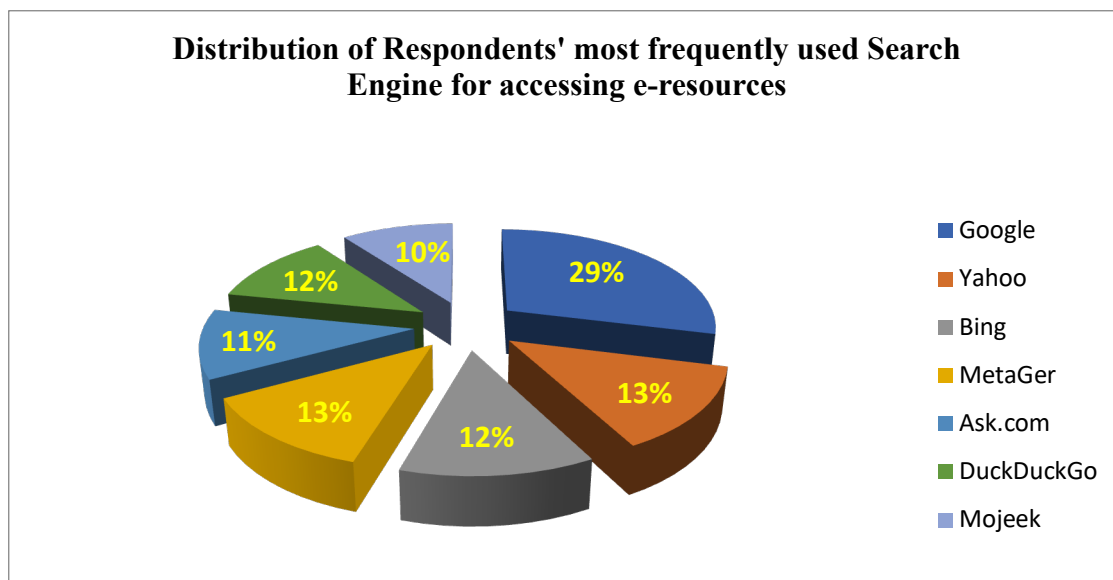
E-RESOURCES UTILIZATION PATTERN BY THE USERS OF SELECTED MEDICAL COLLEGE LIBRARIES IN CHENGALPATTU DISTRICT

Bhaarat Medical College with 105 respondents (44.68%), Chengalpattu Medical College with 95 respondents (39.58%), and SRM College with 84 respondents (36.21%).

Mozilla Firefox is the second most frequently used browser overall, with 246 respondents (17.61%). Its usage ranges from 15.95% in SRM College to 22.08% in Aathiparasakthi Medical College. Microsoft Edge accounts for 139 respondents (9.95%) overall. Its highest proportion is observed in Chengalpattu Medical College (12.92%), while the lowest is in SRM College (7.33%). Opera is used by 105 respondents (7.52%) overall, with the highest proportion in Sri Sathya Sai College (8.73%) and the lowest in Chengalpattu Medical College (5.00%). The remaining browsers are used by relatively smaller proportions. Safari accounts for 5.08%, UC Browser 4.87%, Vivaldi 4.15%, and Brave 3.65% of the total respondents. Thus, the overall pattern indicates a clear concentration of respondents' browser usage around Google Chrome, while the other browsers have comparatively lower levels of use.

Table 7.3: Distribution of Respondents' most frequently used Search Engine for accessing e-resources

Sl. No	Search Engine	SRM College	Sathya Sai College	Chengalpattu College	Aathiparasakthi College	Chettinad College	Bhaarat College	Total
1	Google	46 (19.83)	65 (28.38)	69 (28.75)	66 (28.57)	75 (32.61)	83 (35.32)	404 (28.92)
2	Yahoo	35 (15.09)	31 (13.54)	41 (17.08)	34 (14.72)	24 (10.43)	21 (8.94)	186 (13.31)
3	Bing	29 (12.50)	30 (13.10)	31 (12.92)	31 (13.42)	32 (13.91)	20 (8.51)	173 (12.38)
4	MetaGer	31 (13.36)	28 (12.23)	29 (12.08)	29 (12.55)	26 (11.30)	31 (13.19)	174 (12.46)
5	Ask.com	30 (12.93)	23 (10.04)	25 (10.42)	25 (10.82)	23 (10.00)	29 (12.34)	155 (11.10)
6	DuckDuckGo	32 (13.79)	28 (12.23)	24 (10.00)	24 (10.39)	24 (10.43)	31 (13.19)	163 (11.67)
7	Mojeek	29 (12.50)	24 (10.48)	21 (8.75)	22 (9.52)	26 (11.30)	20 (8.51)	142 (10.16)
	Total	232 (100)	229 (100)	240 (100)	231 (100)	230 (100)	235 (100)	1,397 (100)



7.3. Distribution of Respondents' most frequently used Search Engine for accessing E-resources

Table 7.3 shows the search engine most frequently used by respondents to access e-resources. Google is the most preferred search engine overall, used by 404 respondents (28.92%). Yahoo is second (13.31%), followed by MetaGer (12.46%), Bing (12.38%), DuckDuckGo (11.67%) and Ask.com (11.10%). Mojeek is the least used (10.16%). Google's share is more than double that of any other search engine. At the college level, Google is the first choice in all six colleges, but its share varies widely. It is highest at Bhaarat Medical College (35.32%) and Chettinad (32.61%), moderate at Chengalpattu (28.75%), Aathiparasakthi (28.57%) and Sathya Sai (28.38%), and lowest at SRM (19.83%). At SRM, the other search engines are used almost as much as Google. Yahoo is the second choice at SRM (15.09%) and is strongest at Chengalpattu (17.08%), while it is weakest at Bhaarat (8.94%). Bing is strongest at Chettinad (13.91%) and weakest at Bhaarat (8.51%). The alternative engines (MetaGer, Ask.com, DuckDuckGo and Mojeek) each account for roughly 9 to 14 percent in every college, and no college shows a clear preference for any of them.

Overall, Google dominates search engine use for e-resources among medical college library users, but the strength of that preference differs by institution. Respondents at SRM spread their use across several search engines, while those at Bhaarat and Chettinad rely on Google more heavily.

Table 7.4: Distribution of Respondents most frequently using full text E-journals and E-Books Sources

SL.N	E-resource	I Year	II Year	III Year	IV Year	V Year	Total
1	Science Direct	29 (11.42)	34 (12.32)	54 (18.43)	44 (15.38)	39 (13.54)	200 (14.32)

E-RESOURCES UTILIZATION PATTERN BY THE USERS OF SELECTED MEDICAL COLLEGE LIBRARIES IN CHENGALPATTU DISTRICT

2	Springer Nature Link	31 (12.20)	36 (13.04)	26 (8.87)	41 (14.34)	51 (17.71)	185 (13.24)
3	Wiley Online Library	32 (12.60)	30 (10.87)	34 (11.60)	36 (12.59)	40 (13.89)	172 (12.31)
4	Oxford Academic	41 (16.14)	43 (15.58)	39 (13.31)	47 (16.43)	34 (11.81)	204 (14.60)
5	Taylor & Francis Online	35 (13.78)	42 (15.22)	51 (17.41)	25 (8.74)	46 (15.97)	199 (14.24)
6	SAGE Journals	30 (11.81)	35 (12.68)	26 (8.87)	26 (9.09)	31 (10.76)	148 (10.59)
7	ProQuest	26 (10.24)	25 (9.06)	33 (11.26)	31 (10.84)	22 (7.64)	137 (9.81)
8	JSTOR	30 (11.81)	31 (11.23)	30 (10.24)	36 (12.59)	25 (8.68)	152 (10.88)
	Total	254 (100)	276 (100)	293 (100)	286 (100)	288 (100)	1,397 (100)

7.4. Distribution of Respondents most frequently using full text E-journals and E-Books Sources

Table 7.4 shows the full-text e-journal and e-book source most frequently used by respondents across the five years of study. Oxford Academic is the most used source overall, with 204 respondents (14.60%). Science Direct (14.32%) and Taylor & Francis Online (14.24%) follow so closely that the top three are practically equal. Springer Nature Link (13.24%) and Wiley Online Library (12.31%) come next. JSTOR (10.88%), SAGE Journals (10.59%) and ProQuest (9.81%) are the least used. The spread between the most and least used source is under five percentage points, so no single publisher dominates and use is fairly evenly distributed across sources.

Preferences vary by year of study.

- **First and second year:** Oxford Academic leads (16.14% and 15.58%), followed by Taylor & Francis Online in the second year (15.22%).
- **Third year:** Science Direct leads (18.43%), followed by Taylor & Francis Online (17.41%). Springer Nature Link and SAGE Journals are lowest (8.87% each).
- **Fourth year:** Oxford Academic leads again (16.43%), followed by Science Direct (15.38%) and Springer Nature Link (14.34%). Taylor & Francis Online drops sharply to its lowest share (8.74%).
- **Final year:** Springer Nature Link leads (17.71%), followed by Taylor & Francis Online (15.97%) and Science Direct (13.54%). Oxford Academic falls to 11.81%.

Springer Nature Link's share rises from 12.20% in the first year to 17.71% in the final year. This may indicate that senior students, who work on research and project assignments, turn to it more as their information needs become more specialised. ProQuest has the lowest share in the

first, second and final years (7.64% in the final year), which suggests low awareness or limited relevance of this database for the students.

In short, students use a wide range of sources rather than depending on one publisher. Oxford Academic, Science Direct and Taylor & Francis Online are the core sources, while preferences shift across the years of study. This points to the need for year-wise awareness and training programmes on less-used resources such as ProQuest, SAGE Journals and JSTOR.

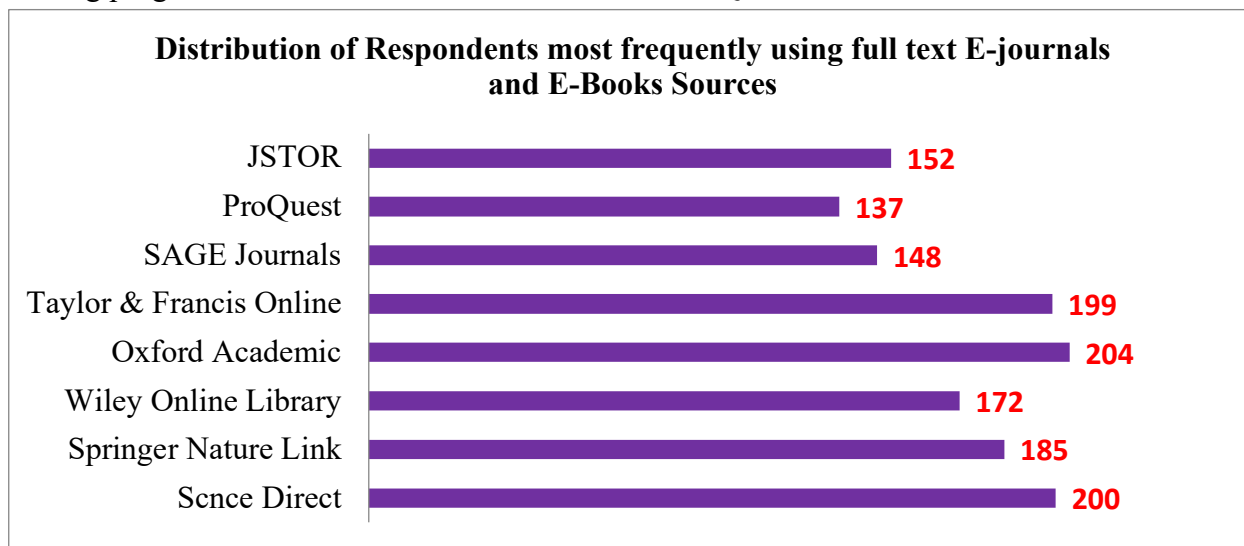
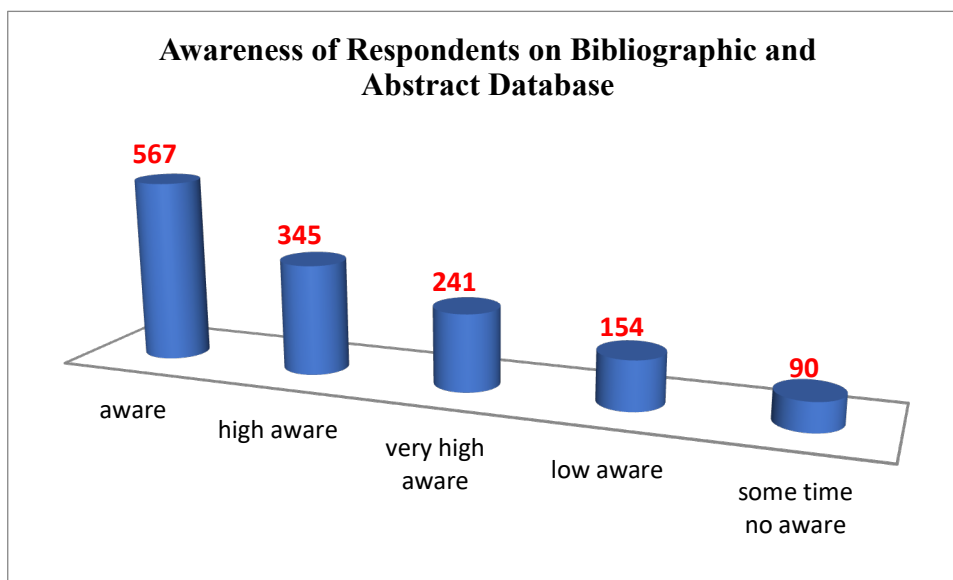


Table 7.5: Awareness of Respondents on Bibliographic and Abstract Databases

Sl. No	E-resource	Aware	High aware	Very high aware	Low aware	Sometimes not aware	Total
1	PubMed/MEDLINE	106 (40.93)	65 (25.10)	57 (22.01)	20 (7.72)	11 (4.25)	259 (100)
2	Embase	78 (39.39)	39 (19.70)	26 (13.13)	31 (15.66)	24 (12.12)	198 (100)
3	Scopus	66 (32.35)	75 (36.76)	36 (17.65)	14 (6.86)	13 (6.37)	204 (100)
4	Web of Science	97 (42.54)	59 (25.88)	41 (17.98)	21 (9.21)	10 (4.39)	228 (100)
5	CINAHL	96 (47.52)	41 (20.30)	21 (10.40)	34 (16.83)	10 (4.95)	202 (100)
6	PsycINFO	75 (44.91)	35 (20.96)	28 (16.77)	16 (9.58)	13 (7.78)	167 (100)
7	LILACS	49 (35.25)	31 (22.30)	32 (23.02)	18 (12.95)	9 (6.47)	139 (100)
	Total	567 (40.59)	345 (24.70)	241 (17.25)	154 (11.02)	90 (6.44)	1,397 (100)



7.5: Awareness of Respondents on Bibliographic and Abstract Databases

Table 7.5 shows the respondents' awareness of seven bibliographic and abstract databases. Of the total 1,397 responses, 40.59% fall under "Aware", 24.70% under "High aware" and 17.25% under "Very high aware". Only 11.02% fall under "Low aware" and 6.44% under "Sometimes not aware". Taken together, 82.53% of the responses show a positive level of awareness (aware, high and very high), while 17.47% show low or no awareness. Overall, the respondents are well aware of these databases.

PubMed/MEDLINE has the highest positive awareness, at 88.03% (40.93% aware, 25.10% high and 22.01% very high). Only 11.97% were low or not aware. This confirms that PubMed is the most familiar database among the respondents. Scopus ranks second with 86.76% positive awareness. It has the highest "High aware" share of all the databases (36.76%), which shows that respondents know it well. Web of Science is next at 86.40%, with 42.54% "Aware" and only 13.60% low or not aware. PsycINFO has 82.63% positive awareness. Its "Sometimes not aware" share (7.78%) is slightly higher than that of the top three databases. LILACS has 80.58% positive awareness. Even though it is a regional database, 23.02% of respondents reported very high awareness, the highest "Very high aware" share of all the databases. However, 19.42% were low or not aware, so it needs more promotion. CINAHL has 78.22% positive awareness. Its "Aware" share is the highest (47.52%), but only 10.40% reported very high awareness, and 21.78% were low or not aware. Embase has the lowest awareness (72.22%) and the highest share of low or not aware responses (27.78%). More than one-fourth of the respondents were weakly aware of it, so it needs the most attention.

The finding of the table, Awareness is highest for the widely used core databases (PubMed, Scopus and Web of Science) and lower for the specialised or subscription-based ones (CINAHL and Embase). The library should therefore organise orientation programmes, workshops and

hands-on training focused on Embase, CINAHL and LILACS to raise the respondents' awareness of them.

Table 7.6: Awareness of Respondents on Drug Information Resources

Sl. No	Drug resource	Aware	High aware	Very high aware	Low aware	No aware	Total
1	Micromedex	151 (37.19)	88 (21.67)	75 (18.47)	66 (16.26)	26 (6.40)	406 (100)
2	Lexicomp	145 (42.27)	63 (18.37)	62 (18.08)	48 (13.99)	25 (7.29)	343 (100)
3	MIMS	132 (44.30)	61 (20.47)	45 (15.10)	41 (13.76)	19 (6.38)	298 (100)
4	DrugBank	143 (40.86)	78 (22.29)	71 (20.29)	37 (10.57)	21 (6.00)	350 (100)
	Total	571 (40.87)	290 (20.76)	253 (18.11)	192 (13.74)	91 (6.51)	1,397 (100)

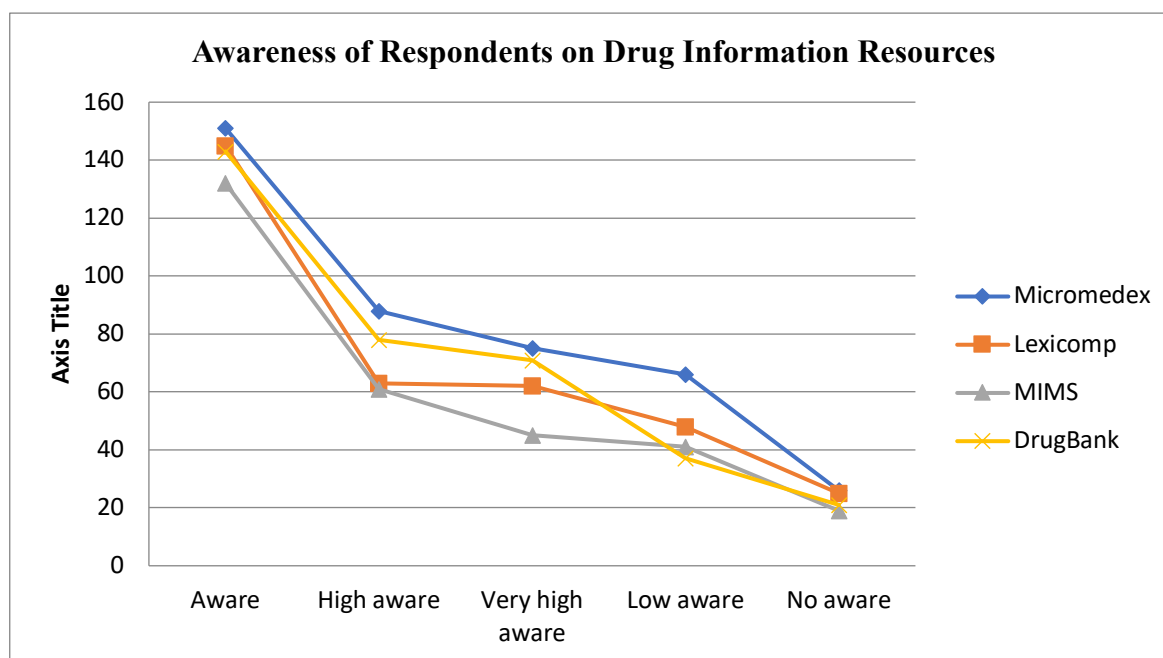


Table 7.6. Awareness of Respondents on Drug Information Resources

Table 7.6 shows the respondents' awareness of four drug information resources. Of the total 1,397 responses, 40.87% fall under "Aware", 20.76% under "High aware" and 18.11% under "Very high aware". Only 13.74% fall under "Low aware" and 6.51% under "No aware". Taken together, 79.74% of the responses show a positive level of awareness (aware, high and very high), while 20.26% show low or no awareness. Overall, the respondents are well aware of these drug information resources.

DrugBank has the highest positive awareness, at 83.43% (40.86% aware, 22.29% high and 20.29% very high). It also has the highest "High aware" and "Very high aware" shares of the four resources, and the lowest "Low aware" share (10.57%). Only 16.57% were low or not aware.

MIMS ranks second with 79.87% positive awareness. It has the highest "Aware" share (44.30%), but only 15.10% reported very high awareness, the lowest of the four resources. Lexicomp has 78.72% positive awareness, with 42.27% "Aware". Its "No aware" share (7.29%) is the highest among the four resources, and 21.28% were low or not aware. Micromedex has the lowest positive awareness (77.34%), and the highest "Low aware" share (16.26%). 22.66% of its responses were low or not aware. This is notable because Micromedex is a widely used clinical drug database, so it needs more promotion among the respondents.

It is concluded that the respondents are generally well aware of all four drug information resources, and the differences between them are small (about 6 percentage points between the highest and the lowest). The freely accessible DrugBank is the best known, while the subscription-based Micromedex and Lexicomp are somewhat less known. The library should therefore conduct orientation programmes and hands-on training on Micromedex and Lexicomp to strengthen awareness of them.

8. Conclusion

E-resources occupy a central place in the academic and clinical lives of medical college communities, but their value is realized only to the extent that users are aware of them, equipped to search them effectively, and supported by adequate infrastructure. This study of six medical college libraries in Chengalpattu District indicates that targeted awareness-building, skills training, and infrastructure investment are likely to yield the greatest improvement in e-resource utilization, and by extension, in the academic and clinical outcomes these resources are meant to support.

References

1. Ali, O., Murray, P. A., Momin, M., Dwivedi, Y. K., & Malik, T. (2024). The effects of artificial intelligence applications in educational settings: Challenges and strategies. *Technological Forecasting and Social Change*, 199, 123076. <https://doi.org/10.1016/j.techfore.2023.123076>
2. Anie, N. C., et al. (2013). Utilization of e-journals by the research scholars of Sree Sankaracharya University, Kalady: A case study. *International Journal of Library & Information Science*, 2(2).
3. Babu, K. M., & Sivaraman, P. (2020). Utilization of electronic information resources and services by students of engineering colleges, Bangalore City: A study. *Journal of Interdisciplinary Cycle Research*, 12(8), 1076-1091.
4. Ch.Srinivasa Rao and Sivaraman P (2025). User Perception and Opinion Among Engineering College Students in Yadadri Bhuvanagiri District, Telangana State. Communications on Applied Nonlinear Analysis. Vol 32 No. 10s p. 4926 -4936. <https://internationalpubs>.
5. Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3, 275–285. <https://doi.org/10.1016/j.susoc.2022.05.004>

6. Mahalakshmi, M. (2024). Users' satisfaction with library information resources, services, and facilities: A case study of Stella Maris College, Chennai. *Journal of Indian Library Association*, 60(1).
7. Natarajan, K., Suresh, B., Sivaraman, P., & Sevukan, R. (2010). Use and user perception of electronic resources in Annamalai University: A case study. *Annals of Library and Information Studies*, 57(1), 59-64. <http://nopr.niscair.res.in/handle/123456789/8285>