



Original Research Article

## A Study on Library Usage Pattern among Undergraduate Medical Students in a Tertiary Care Teaching Hospital in Bihar

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### ABSTRACT

Due to definite lack of data regarding use of library among undergraduate medical students in Bihar, this current study was conducted to fill the void. The objective was to find the usage pattern of library services including information technology services among undergraduate students of a tertiary care teaching hospital in Bihar. A cross-sectional, observational study was conducted from January to May 2015 in the undergraduate library of M.G.M. Medical College and L.S.K. Hospital, Kishanganj. Students who visited the library during the study period were given pre-tested self-responding questionnaire and the responses were analysed. In our study 90.80% of the students belonged to the age of 18-25 years, among which 54.60% were female. 40.80% of the students visited the library daily, followed by 28.16% who visited 2-3 times per week. 45.98% students on an average spent 1-2 hours in the library, followed by 36.78% for 2-4 hours. 90.80% responded that their purpose of visit was to study and make notes, followed by reading textbooks 85.06%. In IT usage pattern 69.54% responded internet browsing as their purpose, whereas 61.49% for sending Email. Though majority of the students were satisfied with services provided by the library some were disappointed about the insufficient number of commonly read books and limited working hours of the library. Very few students made use of the medical journals and electronic media databases therefore it is essential to make them aware of these facilities by proper training.

**Keywords:** Library usage pattern, IT resources, Undergraduate medical students, Self learning, India.

### INTRODUCTION

As medical science is a continuously advancing discipline, the use of the medical library by students is a very important means for updating their knowledge and competence. [1] One of the major goals of medical education is to encourage students to maintain their knowledge of medical science by becoming life-long learners. [2] Adequate skills in information seeking and regular use of original scientific sources are

key elements in this process. With regard to medical informatics education, both information processing and information technology have been considered relevant for the quality of healthcare. [3] Medical education is often criticized for its failure to promote a sense of responsibility among medical students for their own learning. This is associated with over reliance on textbooks for information and traditional, didactic lectures. [4,5] Teachers need to encourage

students not to rely on their class notes; to enrich their learning experience they must use textbooks and other resources. They also must learn to collect information by their own efforts, to develop adequate professional competence. [6] Though formal education draws more attention, education in its real sense, starts through informal self-learning. [7]

The academic library should facilitate the transfer of knowledge by providing resources for all who work and study in the institution. The major purpose of the library is to provide information. [8] In addition to the traditional function of collecting, organizing and providing access to information in print, modern libraries include internet facilities, e-book sand online databases. [9]

But still a well-stocked library is not enough to draw students to use them. Many factors like personal preferences, general environment in the library, inconveniences of working hours, etc. may influence the use of the libraries in order to meet the needs of medical students. The effectiveness of a library as an instrument of learning is determined by the success with which it is able to provide the user with the information that he/she seeks. The library can fulfill its function best by pursuing a policy of constant self-evaluation in order to be alert to the changing needs of its users. [10,11]

Thus the objective of this study was to find the usage pattern of library services including information technology (IT) services provided and to identify specific areas of satisfaction and dissatisfaction among undergraduate students in order to improve upon them.

## MATERIALS AND METHOD

A cross-sectional, observational study was conducted in the undergraduate library of M.G.M. Medical College and L.S.K. Hospital, Kishanganj (Bihar) from January to May 2015 after taking proper approval from ethical committee of the institute. The study population comprised of all undergraduate students who visited the library during the study period and were willing to participate were given a pre-designed, pre-tested self-responding questionnaire after taking proper informed consent. The questionnaire comprised of demographic data, frequency and purpose of visit, utilization patterns and level of satisfaction of library services and IT resources, specific areas of satisfaction and dissatisfaction.

Out of the 186 students who visited the library, 174 students who submitted the questionnaire after completion were included in the study. Compilation and analysis of data were done in the Department of Pharmacology using MS Excel 2010.

## RESULTS

In our study the maximum number of students 158(90.80%) belonged to the age group of 18-25 years, whereas, 16(9.20%) were > 25 years of age. The Mean  $\pm$  SD age was found to be 21.24  $\pm$  2.48 years. Among them majority were females 95(54.60%) and the rest 79(45.40%) were male students. Educational qualification included first year MBBS 52(29.89%), second year MBBS 47(27.01%), final year part-I 41(23.56%) and final year part-II 34(19.54%) (Table 1).

Table 1 Demographic profile according to age, sex and educational qualification

Year	Male		Female		Total	%
	Number	%	Number	%		
First year	21	26.58	31	32.63	52	29.89
Second year	25	31.65	22	23.16	47	27.01
Final year part 1	18	22.78	23	24.21	41	23.56
Final year part 2	15	18.99	19	20.00	34	19.54
Total	79		95		174	

The frequency of library visit showed that 40.80% of the students visited daily, followed by 28.16% who visited 2-3 times per week and 13.80% once a week (Figure 1). And about average time spent in the library 45.98% responded 1-2 hours, followed by 36.78% for 2-4 hours and 14.37% less than 1 hour (Figure 2).

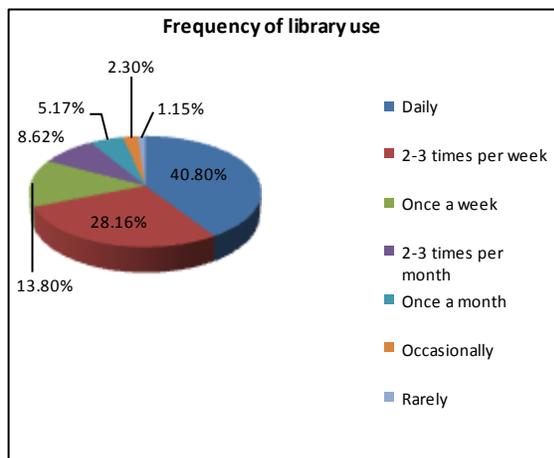


Figure 1 Frequency of library use

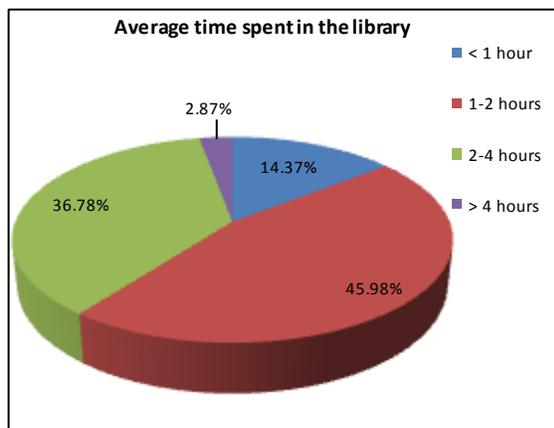


Figure 2 Average time spent in the library

The main purpose of students visiting the library was to study and make notes (90.80%), followed by reading textbooks 85.06%. 79.89% students responded they also read newspapers/magazines while in the library, 74.71% said they came to borrow books and 72.41% to return/renew books. 60.34% responded they

visited the library for exam preparations (Table 2). In terms of IT usage pattern 69.54% students responded internet browsing as their purpose, 61.49% for Email, 41.38% preparation of power-point presentation for seminars followed by 27.59% for preparation of word document/excel sheet for project purpose (Table 3).

Table 2 Purpose of visit to the library

Purpose of visit	Number	%
To borrow books	130	74.71
To return/renew a borrowed book	126	72.41
To read text book	148	85.06
To consult reference book	51	29.31
To read journals	15	08.62
To prepare for examinations	105	60.34
To study/make notes	158	90.80
To complete class assignments	69	39.66
To prepare for seminar	40	22.99
To read newspaper/magazine	139	79.89
To use computer/internet facility	61	35.06
To use photocopy facility	11	06.32
To avail book binding facility	05	02.87
To meet a friend	84	48.28

Table 3 IT usage pattern

IT usage pattern	Number	%
To prepare power-point presentation for seminar	72	41.38
To prepare word document/excel sheet for project	48	27.59
For internet browsing	121	69.54
Email	107	61.49
To read eBooks	27	15.52
Audio/visual	11	06.32

Table 4 Benefits of library usage & IT services

Benefits	Number	%
<b>Benefits of library usage</b>		
To gain new knowledge	78	44.83
To update existing knowledge	105	60.34
For retrieving literature	26	14.94
Information on a specific disease	52	29.88
Research purpose	13	07.47
For diagnosis information	11	05.75
For publication	08	04.60
For information on patient care	67	38.51
<b>Benefits of IT services</b>		
Better access to information	122	70.11
Quick/ease of information	91	52.30
Improvement in quality of work	72	41.38
Decrease in use of postal mail	37	21.26
Decrease in use of print version	15	08.62

The main benefit of library services was to update existing knowledge 60.34%, followed by gaining of new knowledge

44.83%, 38.51% for information on patient care and 29.88% for information on specific disease. Whereas, the main benefit of IT services was better access to information 70.11%, followed by quick/ease of information 52.30%, 41.38% responded improvement in the quality of work and 21.26% as decrease in postal services (Table 4).

Among level of satisfaction with library resources, 17.24% of the students were highly satisfied, 71.26% who were satisfied and 4.60% who were unsatisfied. Whereas, among level of satisfaction with IT resources, 15.52% were highly satisfied, 61.49% were satisfied and 14.94% showed their non-satisfaction (Figure 3).

In our study we also looked into specific areas of satisfaction and dissatisfaction among the students with library facilities which need to be improved upon. Here, we observed that majority of the students were satisfied with the general condition of the library 89.65%, followed by staff cooperation 78.16%, condition of

books 58.62% and availability of latest edition of books 55.17%. On the other hand 70.69% of the students who visited the library complained about the limited working hours of the library, followed by insufficient number of reference books and books by popular authors 33.33% and 20.69% respectively (Table 5).

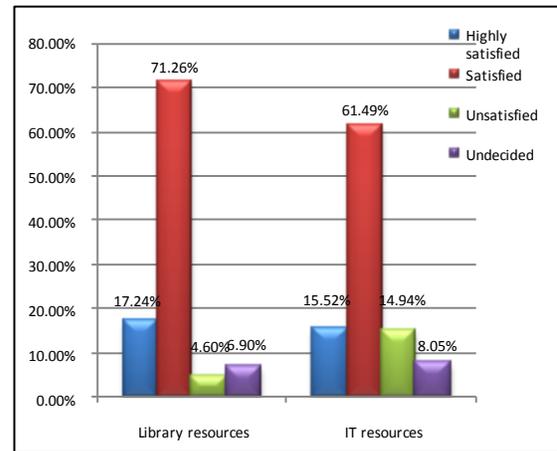


Figure 3 Level of satisfaction with library resources and IT resources

Table 5 Specific areas of satisfaction and dissatisfaction with library facilities

Specific areas of satisfaction and dissatisfaction with library facilities	Number	%
<b>Satisfaction</b>		
Condition of books	102	58.62
Availability of latest edition of books	96	55.17
Availability of journals	15	08.62
Availability of latest information	51	29.31
Staff cooperation	136	78.16
General condition of the library (Proper lighting, Sitting arrangements, Wash-room facility, Drinking water facility, Air-conditioning)	156	89.65
<b>Dissatisfaction</b>		
Insufficient number of reference books	58	33.33
Insufficient number of books by popular authors	36	20.69
Insufficient number of foreign journals	08	04.60
Limited hours of library facility availability	123	70.69

## DISCUSSION

On demographic aspect, in our study we found the maximum number of students 90.80% belonged to the age group of 18-25 years which is in corroboration with studies conducted by Basu *et al* and Goel *et al*. [7,12] In our study female students comprised of about 54.60%, whereas in studies conducted

by Basu *et al* it was found to be 35% and by Shah *et al* it was 19%. [7,13]

In this study we found the number of students visiting the library from final year MBBS (part I + part II) to be higher 43.1%, followed by first year MBBS 29.89% and second year MBBS 27.01%. Whereas in studies conducted by Goel *et al* it was

reported that first year MBBS comprised the majority 40.67%, followed by final year MBBS 29.85% and second year MBBS 29.48%.<sup>[12]</sup> This variation in result probably occurred as the study period in case of Goel *et al* was from June 2005 to June 2011, whereas, in our study the time period was short i.e. five months.<sup>[12]</sup>

In our study that majority of the students 40.80% visited the library daily, followed by 28.16% who visited 2-3 times per week which is in corroboration with studies conducted by Basu *et al* and Shah *et al*.<sup>[7,13]</sup> We found that majority of the students who visited the library 45.98% spent on an average 1-2 hours in the library, followed by 36.78% who spent 2-4 hours. In similar studies conducted by Basu *et al* reported 42.82% students spending 1-2 hours in the library, followed by 32.05% students spending 2-4 hours, whereas, Goel *et al*, which reported 56.6% students spending  $\leq 1$  hour, followed by 23.8% spending 2-3 hours.<sup>[7,12]</sup>

The main purpose of students visiting the library was to study and make notes 90.80%, followed by reading textbooks 85.06% which is in line with the findings of Basu *et al* who reported 91.53% students visited the library to study and 81.28% to read textbooks.<sup>[7]</sup> In studies conducted by Goel *et al* and Lal *et al* they reported 90.3% and 82% students consulting textbooks respectively.<sup>[12,14]</sup> In our study 60.34% responded they visited the library for exam preparations, whereas Chatterjee *et al* reported 61.5% and Basu *et al* reported 51.79%.<sup>[1,7]</sup> This difference might be due to students having or not having examination at the time of data collection.

In terms of IT usage pattern 69.54% students responded internet browsing as their main purpose, followed by 61.49% for sending Email, these finding corroborates with those of Goel *et al* who reported 54.1%

for internet browsing and 47.01% for sending Email.<sup>[12]</sup>

In our study majority of the students were satisfied with both library and IT resources available in the library. 88.5% of the students (17.24% highly satisfied & 71.26% satisfied) were satisfied with the library resource. Whereas, 77.01% of the students (15.52 % were highly satisfied & 61.49% satisfied) were satisfied with the IT resources.

Here we observed that majority of the students were satisfied with the general condition of the library (proper lighting, sitting arrangements, wash-room facility, drinking water facility and air conditioning) 89.65%, followed by staff cooperation 78.16%, condition of books 58.62% and availability of latest edition of books 55.17% which is dissimilar to studies conducted by Chatterjee *et al* and Basu *et al*.<sup>[1,7]</sup> But specific areas of concern which needs to be addressed and improved upon were the working hours of the library since majority of the students who visited the library complained about the limited working hours of the library. Other major complains were insufficient number of reference books and books by popular authors which corroborates with findings by Basu *et al* and Shah *et al*.<sup>[7,13]</sup> This finding reaffirmed the needs to improve the stock of reference books and books by popular authors.

The major limitation of our study was that of short study period which resulted in a small sample size and secondly, we could not compare library usage pattern among under graduate students, post graduate trainees and teachers as we were unable to include post graduate trainees and teachers in this study.

## CONCLUSION AND RECOMMENDATIONS

Though most of the students who visited the library for study purposes and preparation of examination relied mainly on textbooks and sometimes reference books for their knowledge, they hardly made use of the other available facilities like medical journals, e-books and electronic media databases. Here comes the role of the librarians in encouraging students to become self-directed learners by training them to use journals and other electronic media by arranging proper workshops. Although majority of the students were satisfied with the general condition of the library and the facilities provided, yet deficiencies in certain areas came into view such as limited working hours of the library, insufficient supply of reference books and books by popular authors. In order to address these issues the management should step forward to increase the working hours of the library and to improve the stock of commonly read books.

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**Conflict of interest:** There was no conflict of interest.

**Ethical approval:** Proper approval from the institutional ethical committee was taken.

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