

Original Research Article

The Utilization of Library Services by Undergraduate Students in a Medical College

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ABSTRACT

Background: Medical students must learn to collect information by their own efforts, to develop adequate professional competence. Many factors influence the use of the libraries. This study was undertaken to determine usage pattern and hurdles in use of the information resources and library services in a Medical College.

Objectives:

1. To determine the extent of use of the library and IT services
2. To discover problems faced by students and to suggest improvements of resources in library

Materials and Methods: This was a cross sectional study conducted among undergraduate students during January to February 2014. A predesigned and a pretested questionnaire were used. The data was tabulated and analyzed using Epi Info and MS Excel.

Results: In the present study, the 105(32.2%) were daily visiting the library. The main purpose of students visiting library was self-study (78.6%). In the present study, students opined that physical facilities like refreshment facility, no. of seats, washroom facility were inadequate in 78.3%, 75.8%, 50.0% of cases respectively and 47.8% said that the recent editions of textbooks were not available every time that they were asked for. Only 9 (7.3%) were using these IT services daily. The major recommendations for library facility suggested were no. of seats to be increased, adequate ventilation and increase no. of recent editions of books while the major recommendation for IT facility was free Wi-Fi and uninterrupted internet connection. Around 30.6% were fully satisfied about their objectives in the library while only 5.7% were fully satisfied with IT services. Apparently, respondents from third year compared to first and second year reported higher degree of usage in almost all resources.

Conclusions: The study suggests that fulfillment of more needs to be done to promote self-directed learning. The usage of library, its resources and services needs to be improved.

Key Words: Library Usage, Utilization, Medical students

INTRODUCTION

One of the major goals of medical education is to encourage students to maintain their knowledge of medical science by becoming life-long self learners. The major purpose of the library is to provide information. ^[1] Adequate skills in information seeking and regular use of original scientific sources are key elements

in this process. Over the last decades studies have shown that the use of computerized information systems by medical professionals can improve the quality of care, enhance the use of evidence-based treatments, and maintain and update knowledge. Medical students may not be able to learn all that they have to know only from formal classroom lectures. They also

must learn to collect information by their own efforts, to develop adequate professional competence. The role of well equipped medical libraries in order to meet the needs of the medical students cannot be over emphasized. [2] Though an institution may have the best stocked libraries, the utilization of the libraries by the students need not simply depend on the number of books and journals in the library. [3] Many factors like personal preferences, the general environment in the library, inconveniences of the working hours, distance from the place of residence etc may influence the use of the library. 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. [4] Any large institution should make an effort to find out the pattern of the utilization of the library, time to time. The feedback which is thus collected may help in formulating new policies and improving services and it will also give information about what is expected as against what is available. [5] As very few studies were conducted about this matter in India as well as Maharashtra and renovation of the central library of this tertiary teaching institute was done during the year 2006 for Diamond Jubilee celebration, so this study was undertaken among undergraduate medical students to determine usage pattern of the information resources, library services and satisfaction of the user.

Objectives:

- 1) To determine the extent of use of the library services
- 2) To find out the utilization of IT services in the library
- 3) To discover problems faced by students in the library
- 4) To suggest improvements of resources in the library

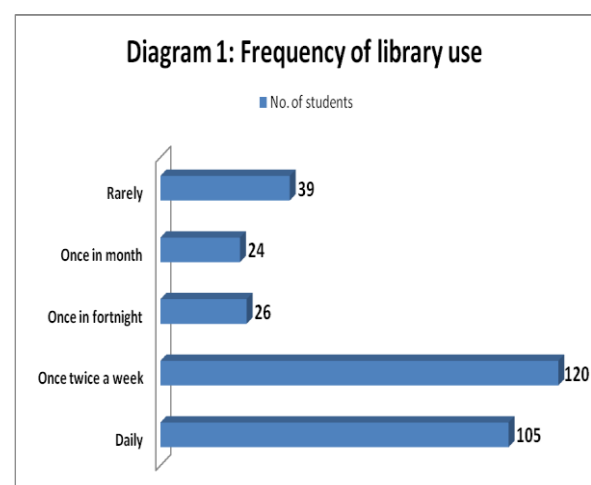
MATERIALS AND METHODS

This was a cross sectional study conducted among undergraduate students of a tertiary teaching institute, in Western Maharashtra during January to February

2014. All undergraduate students (first year, second year and third year) who were present at the time of study and willing to participate in the study were enrolled. A predesigned and a pretested questionnaire were used to collect data which includes sociodemographic profile of the students, library usage pattern, physical structure of library, usage of IT services of library and hurdles in utilization of library services. The questionnaire was distributed to the students in the classroom. The students completed and submitted the questionnaire during the same session. Principal investigator and co-investigators explained the proforma to all students. Permission of Institute Ethical Committee was taken. The data was tabulated and analyzed using Epi Info and MS Excel.

RESULTS

This study was done among the 326 undergraduate medical students using a self-responding questionnaire. The respondent rate was 96.8 % (out of 337, 326 students responded). Age group of students ranges from 18-23 years with mean age 19.8years +1.2 years. The male to female ratio was 0.79:1. Majority 264 (81.0%) were host elite and 62 (19.0%) were localite and private accommodation. Respondent students included first year MBBS 100 (30.7%), second year MBBS 120 (36.8%), third year MBBS 106(32.5%) (Table 1).



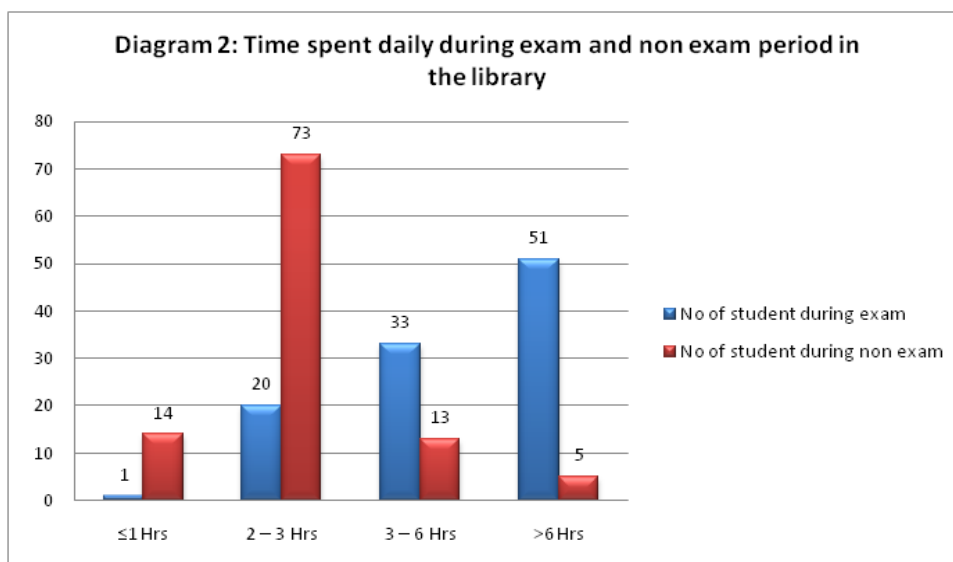
Out of 326 students, 105 (32.2%) were daily using the library services while

majority 120 (36.8%) were visiting library once or twice in a week (Diagram 1). Among the daily user, majority 50 (47.6%) were third year students.

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

Year	Male (%)	Female (%)	Total (%)
First Year	61(42.4)	39(21.5)	100(30.7)
Second Year	40(27.8)	80(43.9)	120(36.8)
Third Year	43(29.8)	63(34.6)	106(32.5)
Total	144(44.2)	182(55.8)	326

Chi-square = 17.76, P<0.0001



The pattern of time spent in the library among the daily users (i.e. 105 students) during exam period was > 6 hrs in 51 (48.6%) students while during non-exam period majority students 73 (69.5%) were using library for 2-3 hrs (Diagram 2).

When mean hours spent in the library was compared among these students, it was found that third year students were spending significantly more time in the library during exam period as compare to first year and second year

students(p<0.0001) (Table 2). But there was no difference in mean hours spent in the library among these students during non-exam period (p=0.12). It was observed that, third year students were doing their 93% of the total studies in the library during exam days and around 85.7% during non- exam days while for first year these figures were 67% (exam days) and 63.3% (non- exam days) and for second year students 58%(exam days) and 56.% (non- exam days).

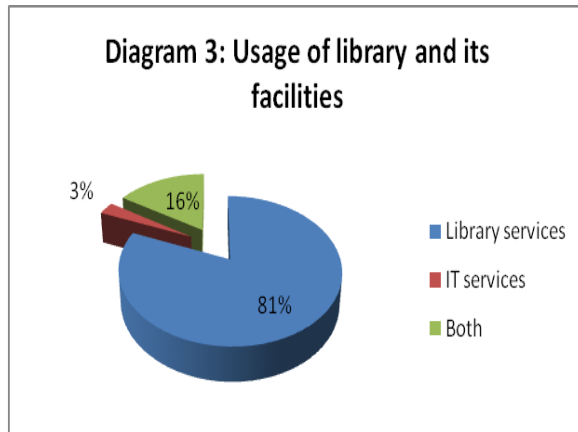
Table 2: Comparison of time spent daily during exam and non- exam according to sex in the library

Year of study	No. (n=105)	Time spent during exam period (Hrs)		Time spent during non-exam period (Hrs)	
		Mean	SD	Mean	SD
First year	29	5.17	2.70	2.69	1.39
Second year	26	5.38	1.89	2.04	1.31
Third year	50	9.50	4.41	2.96	2.26
F Value		19.17		2.14	
P Value		<0.0001		0.12	

Table 3: Objectives of visiting library

Objectives of visiting library	Total (%) (n=314)	First year (n=92)	Second year (n=116)	Third year (n=106)	χ ² Value	P Value
Self study	247(78.6)	84	86	77	12.46	0.002
Preparation of examination	216(68.8)	74	77	65	8.88	0.012
Updating knowledge	72(22.9)	20	21	31	3.99	0.14
Patient care	50(15.9)	5	12	33	28.57	0.0001
Research and Publication	49(15.6)	7	10	32	25.88	0.0001
Not having personal books	27(8.6)	8	10	9	0.003	0.999
Seminars	23(7.3)	4	6	13	5.80	0.055

Out of 314 students who ever visited library, 255 (81%) visited for utilizing library services while only 9 (3%) visited to utilize IT services of library (Diagram 3).



Objectives of visiting library were presented in Table 3, the major objective of visiting library was self-study 247(78.6%) followed by preparation of exam 216 (68.8%). It was found that there was a significant difference for self study ($p < 0.002$), preparation of examination ($p < 0.01$), patient care ($p < 0.0001$), research and publication ($p < 0.0001$) and seminar ($p < 0.05$) while there was no significant difference for other objectives among the

students. There was no significant difference for these objectives among male and female students.

Availability of recent editions of required books in the library:

Out of 314 students utilizing library services, majority 198 (63.0%) had opinion that they were not always getting the recent editions of the text books while 60 (19.2%) said that they were never getting the recent editions of the text books especially during peak hours. Only 56 (17.8%) told that they were always getting the current editions of the text books.

Utilization of journals and news paper section:

Out of the 314 students, only 34 (10.8%) were visiting the journal section, out of which 2 (0.6%) were utilizing printed journal and 32 (10.2%) were utilizing online journals.

Around 65 (20.7%) students visited the newspaper section on daily basis while 141 (44.9%) visited occasionally but 108 (34.4%) never visited the newspaper section of the library.

Table 4: Opinion about the facilities not available in the library

Library facilities not available in library	Total (n=314) (%)	No. of students			χ^2 Value	P Value
		First Year (n=92)	Second Year (n= 116)	Third Year (n=106)		
Location of library-difficult to access	10(3.2)	4	6	0	5.38	0.068
Books -difficult to find out	52(16.6)	20	20	12	3.93	0.14
No. of recent editions of Books- Inadequate	150(47.8)	27	66	57	17.92	<0.0001
Displaying of journals- not well	77(24.5)	20	30	27	0.55	0.76
No. of journals- Inadequate	150(47.8)	18	49	42	13.34	0.001
No. of Seats- Inadequate	238(75.8)	84	78	76	17.66	<0.0001
Seating arrangement –uncomfortable	67(21.3)	20	30	17	3.19	0.20
Light - Inadequate	128(40.8)	25	55	48	10.06	0.007
Ventilation-Inadequate	110(35.0)	16	41	53	23.02	<0.0001
Staff cooperation- Inadequate	113(36.0)	24	42	47	7.13	0.028
Drinking water-Inadequate	127(40.4)	29	51	47	4.31	0.12
Washroom facility- Inadequate	157(50)	37	65	55	5.36	0.068
Refreshment facility-Inadequate	246(78.3)	77	98	71	12.19	0.002

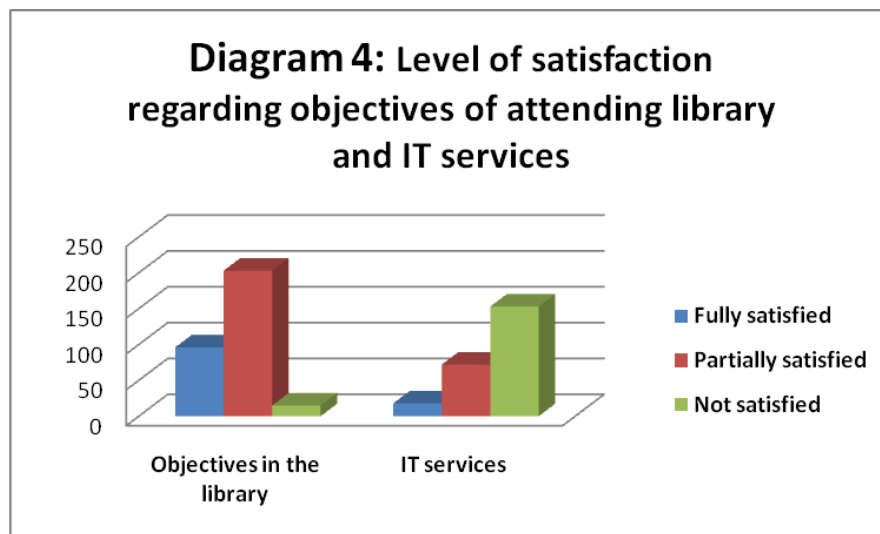
Opinion of the study population about the facilities not available in the library was revealed and was given in Table no.4. To most of library users in the present study, about physical facilities 246 (78.3%) opined that refreshment facility were inadequate while 238 (75.8%) said that no.

of seats were inadequate. Inadequacy of washroom facility and drinking water facility was reported by 157 (50.0%) and 127 (40.4%) of students respectively. The inadequacy was reported about learning materials like recent editions of books by 155 (47.8%) students, no. of journals by 155

(47.8%) students and problem of accessibility by 77(24.5%) students. This might have negative influence on the students in library visit. When the opinion about the facilities available in the library was compared among the students, it was found that the opinions like no. of recent editions of books ($p<0.0001$), No. of journals ($p=0.001$), No. of Seats ($p<0.0001$), Light ($p=0.007$), Ventilation ($p<0.0001$), Staff cooperation ($p<0.028$) and

Refreshment facility ($p=0.002$) differ significantly while there was no significant difference for other opinions among the students. There was no significant difference about opinions among male and female students.

Among the 314 library users, 122 (38.8%) were using information technology (IT). Out of these only 9 (7.3%) were using these IT services daily while 92 (75.4%) were rarely using these services.



Majority i.e. 96 (30.6%) and 203 (64.6%) opined that they are fully satisfied or partially satisfied about their objectives in the library respectively while only 18 (5.7%) were fully satisfied with IT services and majority 153 (48.7%) were not at all

satisfied with the IT services of library (Diagram 4). When students were asked about the timings of library, majority 275 (87.6%) responded that they were satisfied with timings of library.

Table 5: Recommendations of library facilities and IT facilities

Recommendations	Total (n=314) (%)	First year (n=92)	Second year(n=116)	Third year(n=106)	χ^2 Value	P Value
1) Library facilities						
No of seat to be increased	84(26.7)	28	15	41	19.64	<0.0001
Comfortable seating arrangement	40(12.7)	20	9	11	9.82	0.007
Adequate ventilation	73(23.2)	12	30	31	7.95	0.019
Adequate Lighting	33(10.5)	8	12	13	0.67	0.72
Increase staff cooperation	7(2.2)	4	2	1	2.83	0.24
Drinking water facility	12(3.8)	7	5	0	7.88	0.019
Toilet facility	8(2.5)	5	2	1	4.50	0.11
Refreshment facility	23(7.3)	5	2	16	15.27	<0.0001
Separate section for boys & girl	5(1.6)	5	0	0	12.26	0.002
Increased recent edition books	67(21.3)	19	15	33	10.97	0.004
Control of arthropods	12(3.8)	0	5	7	5.96	0.051
2) IT facilities						
Free service & available to all	10(3.2)	7	3	0	9.45	<0.01
Increase no. of computers	4(1.3)	3	1	0	4.41	>0.05
Free Wi-Fi	33(10.5)	6	20	7	8.86	<0.01
Uninterrupted internet connection	21(6.7)	7	5	9	1.73	>0.05
Staff cooperation	1(0.3)	1	0	0	2.42	>0.05
Awareness of IT services should be created	24(7.6)	23	1	0	55.59	<0.0001

Recommendations for library facilities and IT facilities suggested by the students were presented in Table no.5. It was found that major recommendations for library facility were no. of seats to be increased 84 (26.7%), adequate ventilation 73 (23.2%) and increase no. of recent editions of books 67 (21.3%) while the major recommendation for IT facility was free Wi-Fi 33(10.5%) and uninterrupted internet connection 21 (6.7%). There was a significant difference among the students for recommendations like no of seat to be increased ($p<0.0001$), Comfortable seating arrangement ($p=0.007$), adequate ventilation ($p=0.01$), adequate drinking water facility ($p=0.01$), refreshment facility ($p<0.0001$), separate section for boys and girls ($p=0.002$), increase no. of recent editions of books($p=0.004$) and control of arthropods($p=0.05$). There was a significant difference among the students for IT facility recommendations like free service and available to all ($p<0.01$), free Wi-Fi ($p<0.01$) and awareness of IT services should be created ($p<0.0001$).

DISCUSSION

The rapid proliferation of information in the present era has important implications for the education of health professionals including medical students. [6] The observations made from our study were more or less corroborative of other studies. [7-9] In the present study, the 105 (32.2%) were daily visiting the library. Among these daily users, the pattern of time spent was > 6 hrs during exam days while 2-3 hrs during non- exam days. There was a significant difference between mean hours spent in the library, third year students were spending significantly more time in the library during exam period as compare to first year and second year students ($p<0.0001$). During exam period senior students (third year) were doing their major part of studies in the library and due to lack of adequate seating capacity, senior students were getting the place easily as compared to junior students (first year and second year). In a study

conducted in Kolkata, [8] authors found that 46.3% were daily user of library while in another study [10] 40.9% were daily library users which was higher than the findings of this study while in a study of North India [3] only 20.5% daily users of library.

The main purpose of students visiting library was self-study (78.6%) followed by preparation of exam (68.8%). A study conducted in Bihar [4] showed 90% students visited library for self-study. The authors found that there was a need to train and motivate undergraduates to make better use of library services. The usage figures for journal section and newspaper were 10.8% and 65.6% respectively. In a similar study, [8] only 8.6% of the students were found to visit the journal section. The journals were highly underutilized by undergraduate students as research was not a part of undergraduate curriculum.

It is important from the point of view of the personal comforts of library users, to have excellent toilet facilities, arrangements for drinking water and even refreshments in the library premises. [5] In view of this, in the present study, 246 (78.3%) students reported that refreshment facility were inadequate while 238 (75.8%) said that no. of seats were inadequate. Inadequacy of washroom facility and drinking water facility was reported by 157 (50.0%) and 127 (40.4%) of students respectively. Around half of the students (47.8%) said that the recent editions of textbooks were not available every time that they were asked for. Similar study [6,13] has shown that more than 70% of the students found the availability of the text books to be inadequate. Further analysis which compares the usage and opinion between First year, Second year and third year students showed significant differences. Apparently, respondents from third year compared to first and second year reported higher degree of usage in almost all resources. The possible explanation to these findings could be because the senior students are more exposed to the libraries, hence their familiarity with the library

resources are higher compared to the junior students. Other studies [11,12] support these findings. Nonetheless, this finding should alert the relevant authorities, which includes the librarians and the educators on the need to expose the students to all library resources that are available. As for the librarians, they should provide more training on the use of library resources, while for the educators; they should assign students with task that requires them to use all the library resources.

CONCLUSIONS AND RECOMMENDATIONS

- 1) Though most of the students did utilize the library services, most of them seemed to be using the standard textbooks only, without making use of the other available facilities like medical journals or electronic databases.
- 2) Students did not always get the current editions of the books, suggests that there is a need to increase the availability of the commonly read text books.
- 3) An orientation programme should be conducted regarding the library and use of IT services for the students so that maximum utilization of library services will be possible. Staff co-operation should be provided as and when required.
- 4) There is also a need to give some more attention to increase no. of seats and to improve the conveniences and comforts and environmental conditions in the library.
- 5) The library can fulfill its function best by pursuing a policy of constant self-evaluation in order to meet be alert to the changing needs of its users.

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