

# **Use of Information and Communication Technology in Library of Medical College Students: A Study of Bidar Institute of Medical Sciences, Karnataka**

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## **ABSTRACT**

*Use of Information and communication technology in library of medical college students : A study by A Study of Bidar Institute of Medical Sciences,(BIMS) Karnataka (India) A survey determined the use of Use of Information and communication technology(ICT) by medical student of BIMS, a premiere medical college in the district of Bidar Karnataka state (India). it examines students' knowledge of electronic resources, access to computers, and use of electronic recourses A structures questionnaire had a response rate A random sample of 150 (25%) of 600 medical students of Bidar Institute of Medical Sciences, Karnataka, was selected and questionnaires were distributed among them. Of those, 128 (85.33%) questionnaires were returned completed. in this research apply different parameters like the purpose of frequency of visit, internet access and use of e- recourses, attitude of medical students towards ICT, Use of ICT for Access recourses, effectiveness of ICT on medical education and research, impact of ICT on library services and view related to its troubles & level of satisfaction of usage of ICT.*

**KEYWORDS:** ICT Resources, Medical Colleges, Bidar.

## **INTRODUCTION**

New technology has brought significant changes in education (Bates, 2005). Medical education has also undergone profound changes due to recent technological advancements (Harden, 2002; Davis and Harden, 2001). Medical schools, particularly in the developed countries, have invested heavily in Information and Communication Technologies (ICT), not only to deliver education, but also to improve the quality of services that health professionals provide. Developing countries like India, where a scarcity of human resources in the health sector is a serious problem, can be a particular beneficiary of ICT- mediated education. Lack of educational institutions and

qualified medical educators, poor distribution of facilities and poor access to the latest educational infrastructure are some of the issues to be addressed to improve the quality of medical education in developing countries. Advanced technology can address at least some of these problems. In fact, international organizations such as the United Nations (UN) and the World Health Organization (WHO) have acknowledged ICT as a useful tool to address education in health care sector in developing countries (WHO, 2005; Drury, 2005). United Nations Millennium Development Goals have articulated the significance of the use of ICT to address education and health issues (UN Millennium Development Goal, 2004).

## **AIMS AND OBJECTIVES**

The primary purpose of the present study is to investigate use of the state-of-the-art ICT in library Bidar Institute of Medical Sciences, Karnataka. In addition, the study also aims to achieve the following objectives:

- ✓ To explore the role of ICT in medical education and research;
- ✓ To assess the use of electronic information resources by medical students;
- ✓ To identify and analyze specific factors that have hindered the use of electronic information resources by medical students;
- ✓ To examine students' attitudes towards use of ICT in medical education and research
- ✓ To suggest measures for improvement of existing ICT-based resources and services in the medical library.

## **METHODOLOGY**

The study used a questionnaire, with 32 questions spread over eight sections: (A) General profile of the respondent, (B) Attitude towards ICT, (C) Use of ICT, (D) ICT enabled teaching and research, (E) ICT training provision, (F) ICT skill of medical students, (G) Access to Medical Information on the Web, and (H) Constraints. To facilitate quantification and analysis of data, mainly close-ended questions were used along with checklists and rating scales. To capture a response and to have fewer missing responses, options such as “no opinion”, “don't know”, and “don't know about it” are also included. A random sample of 150 (25%) of 600 medical students of Bidar Institute of Medical Sciences, Karnataka, was selected and questionnaires were distributed among them. Of those, 128 (85.33%) questionnaires were returned completed.

## **LITERATURE REVIEW**

Asqari and Haywood (1997) assessed the attitude of Edinburgh University medical students toward computers and found that 86 percent agreed that computer skills will be beneficial to them in their future career, and that 62 percent wanted a structured course in computer use. Another study by Nurjahan and others (2002) was undertaken to obtain a self-reported assessment of the use of ICT by medical students at the International Medical University, Malaysia. The survey revealed that 27 students (5.7 percent) did not use a computer either in the university or at home. Most students surveyed reported adequate skills at word processing (55 percent), email (78 percent) and web searching (67 percent). The study suggested formal inclusion of ICT instruction in the teaching of undergraduate medicine, to enhance medical students' ability to acquire, appraise, and use information to solve clinical and other problems.

## **Bidar Institute of Medical Sciences, and the Library**

Bidar Institute of Medical Sciences, better and abbreviated as, BRIMS is a district Government Hospital and medical college started in 2007 (15 years ago) in Bidar, Karnataka with a status of autonomous institute under Government of Karnataka. At present the college 27,806m. 299,300 square feet, with 19 departments and 635 MBBS students, College is recognized by medical council of India and affiliated to Rajiv Gandhi University of Health Sciences Karnataka.

Initially was tagged to district hospital of Bidar which was of 300 beds strength and was later upgraded to new BRIMS teaching hospital of 750 beds. The new building has eight stories with various departmental OTs, central lab, upgraded equipments, which was inaugurated in 2017.

The Institution runs UG and PG courses in various specialities. Intake for MBBS was initially 100 annually and had been increased to 150 per annum since 2017. Admissions are through NEET UG.

PG seats are in the department of Anatomy, Physiology, Biochemistry, Pharmacology, Forensic medicine and Community medicine. Seats for clinical departments are expected to start from 2018 onwards in Medicine, Surgery,

Ophthal, ENT and Pediatrics. Admissions are through NEET PG.

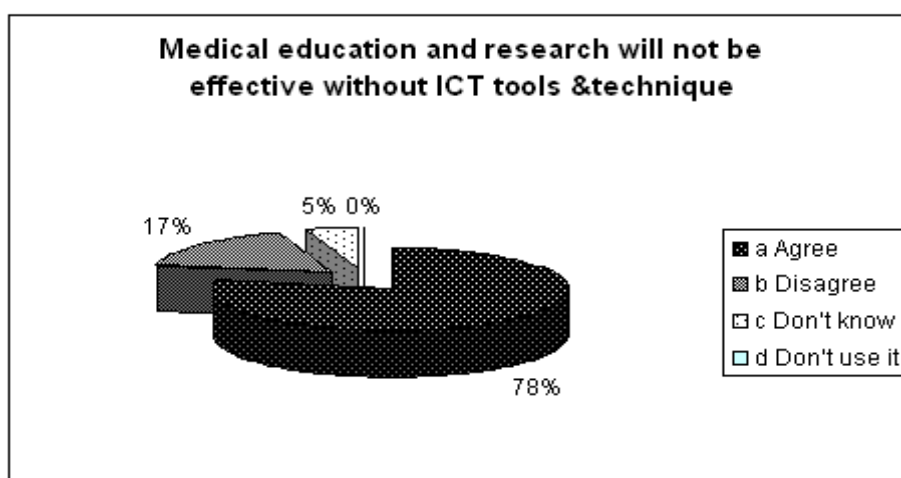
The institute is tagged with zonal pharma covigilance centre and NODAL reference lab under NTCP (National Tuberculosis Control Programme).

## **DATA ANALYSIS AND DISCUSSION**

### **Attitude of Medical Students towards ICT**

The survey found that a majority of respondents believe that ICT is essential for medical education. In order to assess the attitude of medical students towards ICT, they were asked whether they felt that medical education would not be effective without ICT.

**Diagram 1.** Effectiveness of medical education and research



**Need for ICT enabled Library facilities**

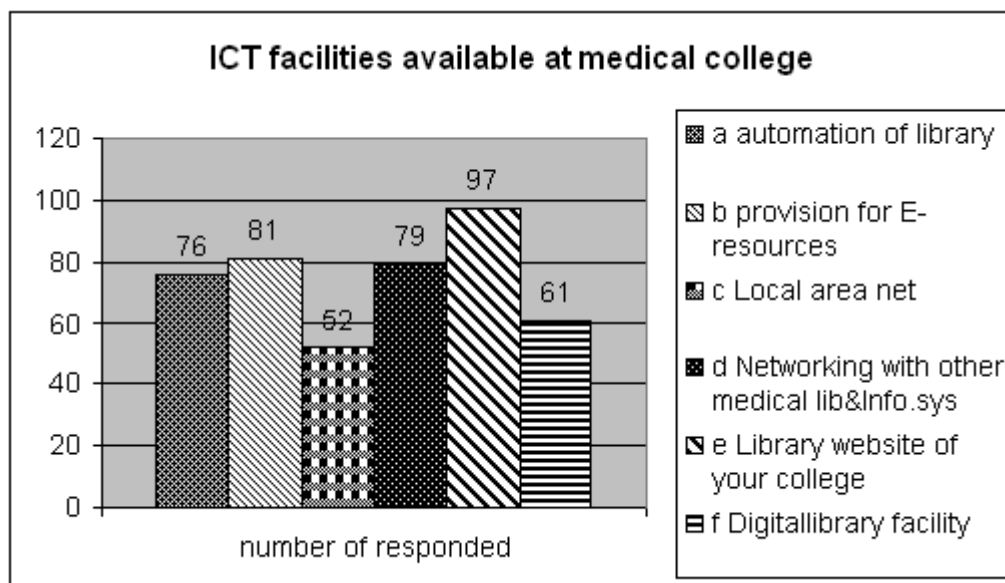
Students were asked to put forth their recommendations about ICT facilities.

**Table 2.** ICT facilities recommended by students

ICT facilities	Frequency	Percent
Library website	97	75.78%
E-resources	81	63.28%
Networking with other medical library and information systems	79	61.72%
Automation of library	76	59.57%
Digital library facilities	61	47.65%
Local Area Network for library	52	40.62%

Three quarters of respondents recommend a library website for remote access to library resources and services. More than 60 percent recommend e-resources and an equal number recommend networking with other libraries and information system.

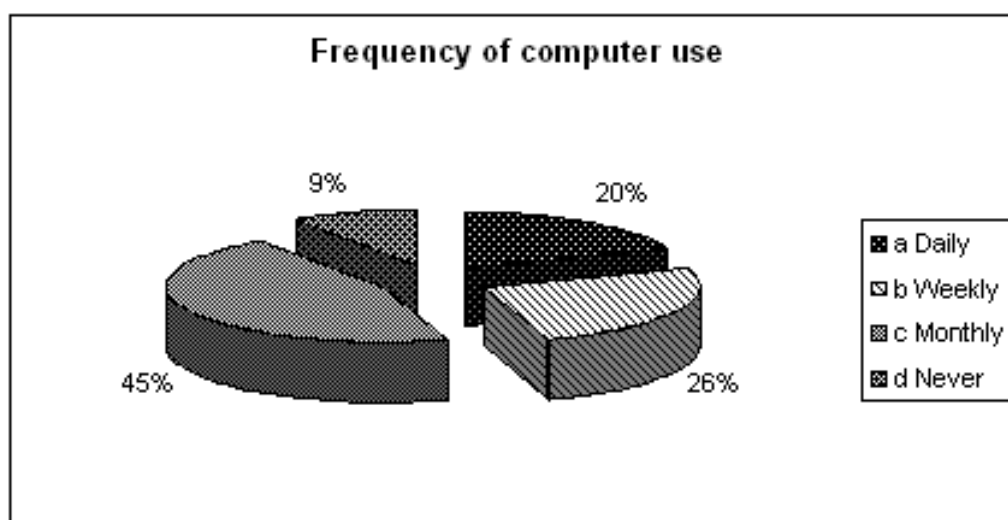
**Diagram 2.** ICT facilities recommended by students



**Use of ICT by Medical students**

The state of computer use by students is not encouraging. Nearly half use a computer at least monthly, with another quarter weekly and only about 20 percent using a computer daily. Nearly 10 percent never use a computer, which is quite discouraging. Although the students consider computers an integral part of medical education, their overall use is infrequent.

**Diagram 3.** Frequency of computer use



### Use of Internet

More than 80 percent of respondents use the Internet. The table summarizes the purpose and frequency.

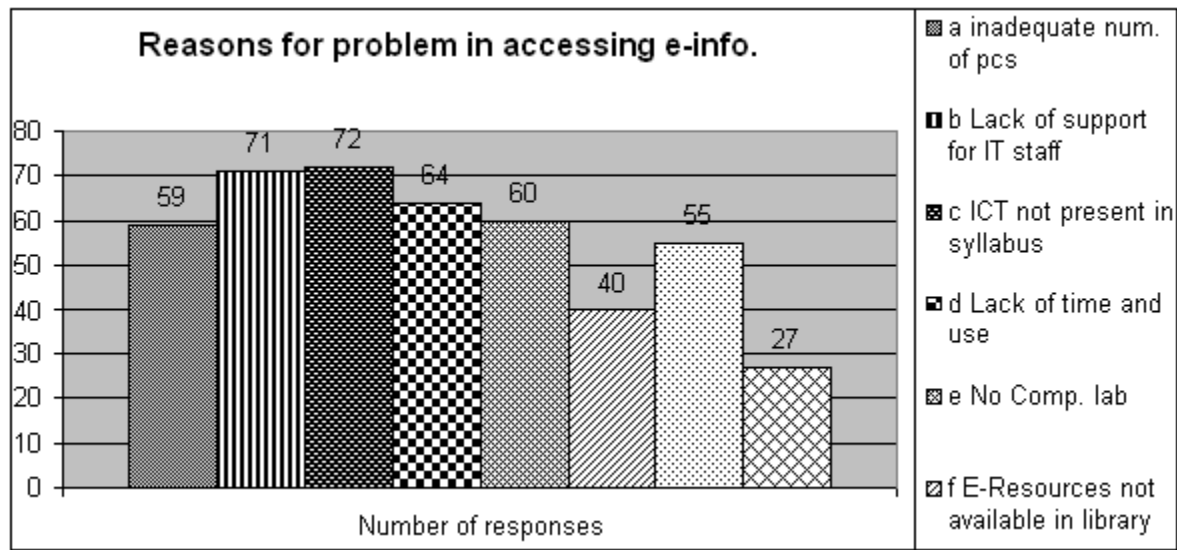
### Constraints in use of ICT

More than half of respondents stated that application of ICT not present in their course syllabus, with a nearly equal number who saw a lack of support from IT staff. Half indicated lack of time, and significant numbers also mentioned the lack of computer labs and a campus network, with a smaller number mentioning a lack of availability of e-resources in the library.

**Table 6.** Problems accessing electronic information

Reasons	Frequency	Percent
Inadequate number of PCs	59	46.09%
Lack of support from IT staff	71	55.46%
ICT not present in syllabus	72	56.25%
Lack of time to use	64	50%
No computer lab	60	46.87%
E-Resources not available in library	40	31.25%
No campus computer network	55	42.96%
No Internet connectivity	27	21.09%

Diagram 6. Problems accessing electronic information



## MAJOR FINDINGS

After a careful analysis and interpretation of the data, the following major findings were noted:

- 99 (77.34%) students are of the opinion that ICT should be included in the undergraduate MBBS syllabus
- Nearly all respondents, i.e., 125 (97.65 percent), students expressed the desire for a computer lab in their college.
- 69 (54%) students recommend that the medical college library subscribe to e-resources for effective study and research.
- 100 (78.12%) students are of the opinion that medical education will not be effective without ICT-based study and teaching.
- A majority of students recommended that a library website be launched and the library should acquire electronic information resources.

## CONCLUSION

ICT provides students with a broad perspective. This important topic was selected as the focus of this study. The study found that ICT can be a useful tool to address problems in medical education, but the lack of technology and resources is still a serious limitation. The noteworthy point is that even after three decades, the inadequacy of qualified technical staff has stood in the way of users' satisfaction.

Further, there is sample evidence that most users are deprived of access to the vast medical literature available in electronic format. The Medical College library has not been able to use the services available at a national and international level. Another obvious finding is the absence of co-operation among the medical libraries in Orissa or at the national level, including the lack of even interlibrary loan. Attention to these broad areas of weakness will go a long way toward improving the use of ICT in the library.

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