



Trend of Internet Use among Medical Students

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Internet is a worldwide computer network allowing communication among millions of users and access to different resources. Biological researchers and scientists are increasingly becoming more and more dependent upon computers to manage the generated information (1). The internet has become the world's biggest library, where retrieval of scientific resources can be done within minutes (2). Electronic hospital libraries are the most sophisticated methods for research profiles to be set up and searched regularly (3). Internet has also revolutionized the medical practice with the increasing use of telemedicine and evidence based medicine (4). The use of bulletin boards and e-forums to get information is fastly getting popular among students (5). The present cross-sectional study was conducted in the Government Medical College, Jammu to assess the trend of computer and internet use among undergraduate (UG) and postgraduate (PG) students. A questionnaire was prepared in english containing 12 items pertaining to existing trend and knowledge regarding internet use (Annexure-1).

Two hundred UG and 100 PG students participated in the study. All the data was collected at the end of the study and presented in percentage. Inter-group comparison was done using chi-square test.

Annexure-1

1. Do you use computer?
2. If used, purpose for which used?
3. Self operated or assisted?
4. Place where used?
5. Preferred medium for getting required information?
6. Reason for preferring internet?
7. Internet mostly used for?
8. Commonly accessed sites?
9. Should computer and internet use be encouraged in teaching institutions?
10. Are you exposed to or satisfied with computer-assisted teaching (CAT)?
11. Do you know any thing about Telemedicine?
12. Do you know any thing about Evidence based medicine?

About 88% of PG students and 65% of UG students were reported to use computers. However, majority (53%) of the PG students were taking help of others ($p < 0.0001$); whereas, 55% of UG students were using computers on their own (Table 1). UG students were using computers for entertainment and general information. Among PG students trend was to use computers generally for thesis and research work ($p < 0.0001$). Majority of students in both the groups were using computers/internet in cyber café, followed by home and college. Textbooks were represented as preferred medium for information by 75% UG students and internet by 84% of PG students. 45% of UG and 24% of PG students were found exposed to computer-assisted teaching (CAT); however, 100% of PG and UG students advocated the use of CAT.

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**Table-1 :Computer and Internet use among students**

Parameters	Undergraduate students n=200(%)	Postgraduate students n=100 (%)	p-value
Computer Users	130(65%)	88(88%)	0.002
1. Self operated	110(55%)	35(35%)	0.044
2. Assisted	20 (10%)	53(53%)	<0.0001
Purpose for using computer			
1. To get general information	84 (42%)	24(24%)	0.062
2. For thesis or research work	--	80(80%)	--
3. For entertainment	104 (52%)	22(22%)	0.0002
4. Any other	24(12%)	42(42%)	0.31
Place where used			
1. Home	48(24%)	46(46%)	0.013
2. College	10(05%)	25(25%)	<0.0001
3. Cyber café	52(26%)	54(54%)	0.0009
4. Anyother	22(11%)	4(4%)	0.31
Preferred medium for information			
1. Journals/library	12(6%)	36(36%)	<0.0001
2. Textbooks	150(75%)	35(35%)	<0.0001
3. Internet	24(14%)	84(84%)	<0.0001
4. Pharmacopeia	10(5%)	15(15%)	0.13
5. Any other	--	--	--
Reason for preferring internet			
1. Time saving	28(14%)	64(64%)	<0.0001
2. Latest knowledge	20(10%)	75(75%)	<0.0001
3. Easy accessibility	8(4%)	44(44%)	<0.0001
4. Nonspecific	--	2(2%)	0.56
Internet used to know-			
1. About drugs	6(3%)	30(30%)	<0.0001
2. Rational prescribing	10(5%)	25(25%)	0.001
3. Therapeutic guidelines	20(10%)	40(40%)	<0.0001
4. Rescent advances in	16(8%)	80(80%)	<0.0001
Knowledge about telemedicine	48(24%)	95(95%)	<0.0001
Knowledge about evidence based medicine	16(8%)	88(88%)	<0.0001
Commonly assessed web sites			
1. www.Google.com	24(14%)	80(80%)	<0.0001
2. www.yahoo.com	20(10%)	60(60%)	<0.0001
3. www.rediff.com	8(4%)	44(44%)	<0.0001
4. www.indiatimes.com	1(0.5%)	10(10%)	0.02
5. specific journal site	--	80(80%)	--
6. pubmed	--	45(45%)	--
7. any other	--	16(16%)	--

n=number, %=percentage

The potential of telemedicine and evidence based medicine in providing the much needed information to

the patients as well as practioners in the today's world cannot be denied. However, present study showed poor knowledge among the UG medical students regarding this (p<0.0001) (Table 1). The students and practitioners should know how to do the literature search and how to extract the right information in this age of internet (5). Moreover, the health and financial resources in developing countries like India are limited and unevenly distributed. In addition, geographic and socioeconomic factors prevent transfer of rapid information between patients and healthcare providers. By the use of telemedicine, through broadband high capacity network connections, we can cross these barriers to provide timely medical care in the remotest corner of the country (6). To achieve this it is important for the practitioners to have ample knowledge of computers and internet.

To conclude, we can say that to meet the need of increased computer and internet use among health care professionals, it is urgently required to introduce short refresher courses in computer application and internet use both among UG and PG students.UG and PG students should be trained to extract valuable information from the special medical web sites and should be encouraged to check the authenticity of information by correlating with existing evidences. This will be helpful in promoting evidence based learning.

References

- Hirschman L, Morgan AA, Yeh AS. Rutabaga by any name: Extracting biological names. *J Biomed Inform* 2002 ; 35 : 247-59.
- Yadav H, Jain S, Kapila S, Prasad G. Internet resources for diabetes. *Ind J Med Sci* 2005 ; 59 (1) : 32-42.
- Brewer G, Hiscock D. Medical education and practice in the information age. *Postgrad Med J* 2001 ; 77 : 425-27.
- Wiecha JM. Collaborative online learning (COL): A new distance education method. *Essential Drug Monitor* 2003 ; 33 : 36.
- Gitanjali B. Identifying a research topic:The problem is the problem. *Ind J Pharmacol* 2005 ; 37 : 67-68.
- Singh M, Khandheria BK, Gura GM, Rihal CS. Telemedicine links between developing and developed nations. *Ind Heart J* 2003 ; 55 : 188-92.