



Role of Digital Media as Information Resource Among First Year Medical Graduates of Nagpur

KEYWORDS

Internet, digital media, computer, medical graduates

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ABSTRACT

Background- The academic landscape in medical education sector has been comprehensively transformed by the recent advances in digital media & information technology. With availability of these online resources students can gather information for learning or solving research problem & improve their knowledge. **Aim -** To assess role of digital media as information resource for learning among medical students of Nagpur. **Materials & method-** Cross sectional questionnaire-based survey was conducted on 100 first year medical students of NKPSIMS & GMCH Nagpur. Questions were designed to assess how the computer & internet resources are utilized, extent & purpose of its use, impediments encountered & benefits received for academic performance. **Results-** Most of the students had access to computer & used digital media for searching information. Wikipedia and PubMed were frequently preferred web sites. CD rom & online learning was preferred mode of information & learning resources. **Conclusion-** We conclude that the majority of the medical students participating in the present study fondle and use internet to approach medical information, but further modification of resources are needed

Introduction:

The academic landscape in medical education sector has been comprehensively transformed by the recent advances in digital media & information technology. Internet is proving to be an incomparable information resource for learning & research in all field of education. Use of digital media increased rapidly since last 2-3 decades (1). Internet has become an important component of quality-oriented education in medical colleges, as it encourages students to obtain current & up-to-date information & utilize it accordingly (2).

Internet is one of the greatest current advancement in the world of information technology & has become a useful instrument that has fostered the process of making the world a global village. The Medical websites & databases developed by medical institutions, associations, agencies, & publishers provide the latest information & knowledge. In a developing Asian county like India, medical professionals are quite aware of the new technologies used by their counterparts in the developed nations. With availability of these online resources students can gather information for learning or solving research problem & improve their knowledge. In NKP Salve Institute of Medical Sciences & Government Medical College Nagpur, medical students are provided with facilities for internet use. So we formulated this questionnaire based study to assess role of digital media for information seeking among first year medical graduates.

Method:

After ethical approval from Institutional ethical committee the present cross sectional questionnaire-based survey was conducted on 100 first year medical students 50 from NKP Salve Institute of Medical sciences & 50 from Government Medical College Nagpur. Questionnaire was designed to assess how the computer & internet resources are utilized, extent & purpose of its

use, impediments encountered & benefits received for academic performance. The purpose of study was explained to the student and questionnaire was personally distributed after finishing subject system. The students were instructed not to disclose their identity. The collected data were processed and analysed using SPSS version for statistical analysis.

Result:

Questionnaire & students response percentage is shown in table 1. All medical students were using internet, maximum 63% of students had 3-4 years' experience of internet use. 37% of medical students had 1-2 years' experience of using internet. 74% used internet daily, 24% used weekly, 12% medical students used internet monthly. Nearly 63% used internet for study purpose, 10% for assignments, 8% for download, 10% for entertainment and 9% used internet for other purpose. Regarding preferred websites 56% chose Wikipedia, 38% PubMed, 6% E-medicine.

Satisfactory internet resources used by medical students were 20% online books or journals, 45% CD rom while 35% preferred online learning. A close observation of table no.1 reveals that maximum number of students benefited by use of internet, 43% found it easier to access internet for information. 22% of medical students preferred to get information from internet rather than library. 15% stated that they have faster access to information from internet. 20% medical students mentioned that internet is the best communication media.

An attempt was made to explore the problem faced during internet use. 30% students felt that use of internet was costly. 21% students were lacking in knowledge for advance search, 20% medical students complained of slow internet speed while 18% complained of overloads of information available.

Table 1. Questionnaire & students response percentage.

| Questions | | Percentage | Questions | | Percentage |
|--|---------------|------------|--|---|------------|
| Using computer - | 1-2 years | 37% | Satisfactory internet resources Used for search | online books / journals | 20% |
| | 3-4 years | 63% | | CD rom resources | 45% |
| | Daily | 74% | | Online learning | 35% |
| | Weekly | 24% | Benefits of internet use | Easier access to internet for information | 43% |
| | monthly | 12% | | Prefer to get information from internet rather than library | 22% |
| Purpose of internet use | study | 63 | | Faster access to information | 15% |
| | Assignment | 10% | Is a best communication device | 20% | |
| | Download | 8% | Problem faced during internet use | Cost of internet access | 30% |
| | Entertainment | 10% | | Lack of knowledge for advance search | 21% |
| | Any other | 9% | | frequent closure of the facility | 18% |
| | | | Slow speed of internet | 20% | |
| Most consulted websites for academic purpose | Wikipedia | 56% | | long waiting period due to inadequate number of computers | 11% |
| | PubMed | 38% | | | |
| | E-medicine | 6% | | | |

Discussion:

In the present study questionnaire based survey was carried out to assess role of digital media for information seeking in first year medical students. Most of the students had access to computer & used digital media for searching information. Medical students need recent information literature very frequently & internet is one of the most important & powerful means for information collection, retrieval and dissemination. It helps students in easily collecting the right information at a right time and updating their

knowledge, that's why maximum students in present study used computer & internet daily. This finding also correlates with other researcher (3). There was no proportionate difference in use of internet for learning purpose and entertainment. That means most of medical students used internet for course assignments as well as for entertainment. This finding correlates with Hua Yang's study (4). A large majority of medical students advocated that computer and its application should be encouraged in teaching institutions which is comparable with the study done in Mangalore by Unnikrishnan et al (5). Computer assisted teaching is gaining importance in the medical field as students can be shown various procedures, demonstrations, surgeries etc. Most of the students consulted websites for information is through Wikipedia and PubMed. Similar finding were reported by Egle J P (6). There are number of medical websites but here students preferred Wikipedia and PubMed. Student's comments that, they know the websites from colleagues, seniors and teachers and these two websites have easier access. In our study most satisfactory resources used by medical students for knowledge & information was CD rom & others used online books and journals. . This finding also correlates with the observations of Mohd Iqbal Bhat (6). Most of students used internet for online learning. Percentage of students using online books and journal was relatively less than those using CD rom, probably the cost of using these two things was very high. Online learning is becoming a recognized method for delivering educational content throughout dental schools in Northern America (7-9). As it is easier to access internet, they prefer to get information from internet rather than library. All the fields of medical and allied sciences require adequate skills of computer and Internet sciences. (10) The major goals of medical education are to encourage students to increase their knowledge of medical science and become life-long learners (11). The use of computers should be integrated & channelized to enhance professional knowledge and skills. This will not only improve the quality of care but will also enhance the use of evidence-based treatments with updated knowledge (12). The primary reason for dissatisfaction of using internet in medical students was observed to be the cost of using internet, the slow speed of internet, lack of knowledge for advance search, long waiting period due to inadequate number of computers, frequent closure of the facility & power cuts. By addressing the reasons responsible for dissatisfaction in using internet and by providing training regarding use of computer may further facilitate the role of digital media for information & knowledge seeking in medical students.

Conclusion:

We conclude that the majority of the medical students participating in the present study fondle and use internet to approach medical information. It also justifies the need to assimilate internet and associated information technology into existing medical curriculum. Acceptable rules and standardization should also be prepared that can contribute to enhanced learning efficiency and refine the use of internet-based resources among medical students.

References:

1. Berson M J. Effectiveness of computer technology in social studies: A review of literature. *J research on computer education*. 2000; 2(4): 486-499.
2. Shuchan L U. Study on information literacy instruction for postgraduate in medical schools. *Chinese J med Educ*. 2009; 29:105-107.
3. Ebele N A, Obianuju E N, Chikelunma N O. Internet information seeking and use by medical students of Nnamdi Azikiwe University, Nigeria. *Int J of library and information science*. 2015; 7(8):148-154.
4. Hua Y, Yunxiang C, Liqiang Z, et al. Analysis of internet use behaviours

- among clinical medical students in China. *BMC medical educ.*2014; 14:67.
5. Unnikrishnan, B., Kulshrestha, V., Saraf, A., Agrahari, A.C., Prakash, S., Samantaray, L. and Parida, A. (2008) Pattern of Computer and Internet Use among Medical Students in Coastal South India. *South East Asian Journal of Medical Education.*2008; 2, 18-25.
 6. Egle J P, Smeenge D M, Kassem K M, Mittal V K .The Internet School of Medicine: use of electronic resources by medical trainees and the reliability of those resources. *Journal of surgical education.* 2015; 72(2):316-320.
 7. Wrzosek M, Warner G, Donoff R B, Howell T H, Karimbux N. A survey of information technology management at U.S. dental schools. *J Dent Educ.* 2003; 67(10):1095–106.
 8. Ludlow J B, Platin E. A comparison of Web page and slide/tape for instruction in periapical and panoramic radiographic anatomy. *J Dent Educ.* 2000; 64(4):269–75.
 9. Boberick K G. Creating a web-enhanced interactive preclinical technique manual: case report and student response. *J Dent Educ.* 2004; 68(12):1245–57.
 10. Najia R, Nesar S, Parveen S, Rehman R, Shakeel S. Computer and internet among medical, dental and pharmacy students of Karachi, Pakistan. *Journal of pharmaceutical and biomedical sciences.* 2013; 31: 1118-1122.
 11. Ayatollahi A, Ayatollahi J, Ayatollahi F, Ayatollahi R, Shahcheraghi S H. Computer and Internet use among Undergraduate Medical Students in Iran. *Pak J Med Sci.* 2014; 30:1054-58.
 12. Romanov K, Aarnio M. A survey of the use of electronic scientific information resources among medical and dental students. *BMC Medical Education.* 2006; 6:34- 39.