

## Evaluation of access and use of internet by Pakistan Medical Students.

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### Abstract:

**Background:** Internet increasingly being used globally in imparting and delivering medical education. Not only for health care training of professionals but also the material available there for medical students is lacking in developing countries.

**Aims:** To evaluate the access, pattern of use in general and for professional purposes by medical students.

**Methodology:** The study was descriptive and cross-sectional in nature, the questionnaire was self-administered semi-structured and was pilot tested on a sample of 5 students from Muhammad Medical College before the final administration on students from different colleges. The study was carried out in 4 different colleges (Punjab Medical College, Quaid-e-Azam Medical College, Nisthar Medical College and Muhammad Medical College) of two provinces (Punjab and Sindh) of Pakistan. The sample size taken was 200 students from 3<sup>rd</sup> year to Final year; response rate was 97 (48.6%).

**Results:** Amongst the 97 respondent, 59 (60.8%) were males and 38 (39.2%) were female users of internet, majority students started using internet in last two years (n=35.1%). Majority students (36.2%) spent up to 5 hours weekly on internet, while 26.6% spent more than 10 hours per week. 91.7% said that they used internet for non-academic use whereas only 13.4% used for academic purpose. In non-academic use, 20.1% used to play games, 12.8% on watching movies and 32.3% on non-academic study. For academic purposes majority (32.9%) used internet to get better understanding of subjects, 24.7% for research purposes, 30.9% for making presentations and 24.7% for making assignments. Regarding academic benefit of internet 48.8% said it was useful while 50.5% said it was of no use. Among all users 48.4% (61% males and 39% females) said that they have miss-used internet (eg. Watching porn, chatting with opposite sex, hacking etc.).

**Conclusion:** Our study shows that most students do not use internet for academic purposes as much as they do for other activities. Negative use of internet is common practice.

**Remarks** Steps should be taken to encourage students to use internet in more positive and discourage negative use.

### Introduction:

The rise in access to information technology across the globe has influenced every walk of life. Likewise, it has had a great impact in the health care systems, mode of education and training, treatment of disease and management of patients. Being the most cost effective means for sharing and dissemination of information among professionals, academicians and students, internet has become an integral part of the academic institutes. Online databases, journals, libraries and books can now be accessed from anywhere in the world, thus minimizing the time to access information. Use of internet is not limited to reading material, a number of interactive tools, videos and applications are available which greatly simplify the complex concepts in graphical and pictorial formats ...

According to estimates, the average time spent by a physician on the internet is 30% of his total time spent for the profession. With such huge influx of information, the medical community accessing the information is

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faced with the challenge of identifying the quality of information that is available<sup>xiii</sup>.

Many doctors still prefer to use the printed material such as books, journals, periodicals and the like. Internet is one of the easiest modes available to medical students for accessing academic information<sup>vii</sup>.

As with other countries, the use of internet in Pakistan is spreading like a wildfire and a vast majority of the medical students have some degree of access to the internet - either at their homes or medical colleges and universities. The use, for academic purposes, however, seems to be limited with a larger proportion of students using it for non-academic purposes such as social networking, enjoyment, etc. This study was designed to assess the trends regarding the use of internet for academic and other purposes among the medical students of Pakistan.

### Methodology:

**Methodology:** the study was descriptive and cross sectional in nature, the questionnaire were self-administered semi structured and was pilot tested on a sample of five students of Muhammad Medical College Mirpurkhas Sindh before going through the full administration in four medical colleges of Pakistan during Aug. 2011. One private medical college, Muhammad medical college Mirpurkhas Sindh, and three public medical colleges of Punjab (Quaid e Azam

medical college Bahawalpur, Nishtar medical college Multan and Punjab medical college Faisal Abad) were included in the study. Inclusion criteria was designed on the basis of experience of professional examination, so the students of 1st and 2nd year MBBS were excluded from the study while remaining three classes (clinical classes) were included. The sample size was 50 students from each college.

### Discussion:

The response rate was 97 (49%) that is comparatively half to the other studies carried out in Europe and India<sup>xi</sup>.

Out of the 98 students who responded to the survey, 91.8% of the students had access to internet, 5.2% of these students said that despite of having access to internet, they didn't use it. The major reason of having no access to internet was financial issues (50 students 52%), while 16 students (16.5%) said there is no coverage of internet at home, 8 students (8.7%) said they do not have any interest in using internet. Most of the students (35.8%) said that they have been using internet for more than five years, while 34 (30.5%) said that they were using since last 3-4 years whereas only 15 students started using internet this year.

The weekly internet use among the students was reported 25 students used for more than 10 hours, 14 people used for 5-10 hours, 34 (35.1%) used for 1-5 hours while 21 (21.6%) used for less than an hour, while in Marrakech students of third year to sixth year use more than 13 hours per week<sup>viii</sup>.

Most of the students (34.4%) said that they used internet for academic purposes but as compare to other studies ratio of internet use for academic purpose by Pakistani students is very low [viii, ix], there may be certain reasons, according to an Indian study the poor skills of students in using internet adversely affect their getting the most out of it. The situation is similar to Nigerian students, where 80% reported lacking the proper skills. Medical students need to acquire computer and Internet skills at the beginning of their medical studies. Some studies indicated that medical students who have not acquired the skills of information technology by the 3rd year are unlikely to do so in the final hospital-based year<sup>six</sup>, according to another study in Pakistan the ability to search online databases including PubMed and PakMedinet was reported by only one third of the students this is lower as compared to difference in use of information technology has been reported previously by many studies.

Only 14.4% respondents used internet for academic purpose more than 5 hours a week, while 28% used less than 1 hour a week. On asking about what the students used internet to get help in academics, 60.8% uses to make assignments, while to make presentations 28.4 used internet, while 7.2 students used internet for research purposes, comparing a study in Batna nearly 80% of students used the Internet to research educational resources, less than one in two students

considered their research successful. It is important to provide advice and guidance to students on how to use and interpret the multiple types and sources of medical information of varying quality that are found on the Internet. It is the responsibility of teachers to fulfill this role and help to facilitate the navigation of this new source of information.<sup>xii</sup>

### Results:

The sample size was 50 students from each college clinical years students, the response rate was 97 (49%). The age range was 21-25 years. Out of the 97 students who responded to the survey, 91.8% of the students had access to internet, 5.2% of these students said that despite of having access to internet, they didn't use it. The major reason of having no access to internet was financial issues (50 students 52%), while 16 students (16.5%) said there is no coverage of internet at home, 8 students (8.7%) said they do not have any interest in using internet. Most of the students (36.2%) said that they have been using internet for more than two years, while 34 (30.5%) said that they were using since last 3-4 years whereas only 15 students started using internet this year. The weekly internet use among the students was reported to be 25 students used for more than 10 hours, 14 people used for 5-10 hours, 34 (35.1%) used for 1-5 hours while 21 (21.6%) used for less than an hour. Most of the students (34.4%) said that they used internet for academic purposes, 20.1% said that they used to play games, while 14 (19.3%) to listen music and songs while 12.8% to watch movies.

Only 14.4% respondents used internet for academic purpose more than 5 hours a week, while 28% used less than 1 hour a week. On asking about what the students used internet to get help in academics, 60.8% uses to make assignments, while to make presentations 28.4 used internet, while 7.2 students used internet for research purposes... Only 56% students had facility of internet at their college.

Regarding misuse of internet, 45.5% students (61% males, and 39% females) admitted that they used to have had misused internet (watching porn, hacking, random chatting). Further on asking about misuse. Regarding importance of internet use, 38 students considered that internet is very important in academic progress of a student whereas 14 students said they thought otherwise. Whereas only 68.5% actually considered it useful.

### Conclusion:

Use of internet for academic purposes should be encouraged in medical colleges so that the students can get up to date medical information in a cost effective manner.

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