

Use of Scientific Information Resources among Medical Students

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Aims and Method

The aim of the study was to survey how original resources of scientific information are utilized by medical students in the Medical Faculty of the University of Helsinki, which belongs to the League of European Research Universities (LERU). LERU promotes the development of scientific thinking skills as a part of research-based education. The study was based on an assumption that using scientific information resources is fundamental to learning scientific thinking skills. One of the major goals of medical education is also to promote the students to remain current with medical science by becoming life-long learners. Adequate skills of information seeking and habituated use of original scientific sources are key elements in this process.

The data were collected in November 2004 by using electronic self assessment questionnaire via electronic form, which contained both multiple choice and open ended questions. The survey was addressed to 670 students, of which 337 (50,3%) responded to it during the survey period of two weeks. 42 subjects did not provide information of their course level.

Material and background variables

Medical students

Year of studies	1	2	3	4	5	6	Total
Home PC use*	36 %	23 %	35 %	36 %	34 %	49 %	36 %
Campus PC use **	27 %	30 %	24 %	30 %	19 %	22 %	25 %
Internet connection ***	87 %	78 %	85 %	84 %	75 %	90 %	83 %
Response rate	63 %	49 %	45 %	39 %	28 %	40 %	44 %
N	106	123	121	112	115	93	670

* Uses home PC for studying 4 hrs/wk or more

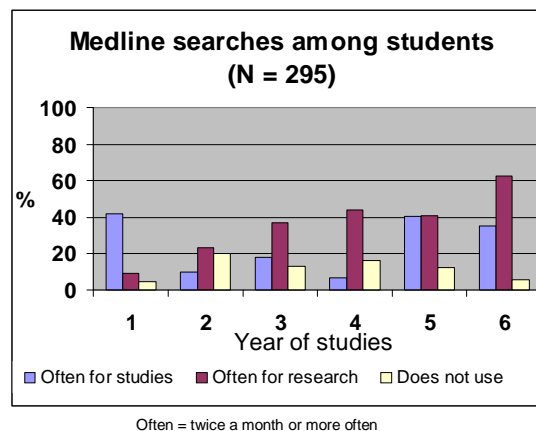
** Uses campus PC for studying 4 hrs/wk or more

*** Has an Internet connection at home

MEDLINE Database

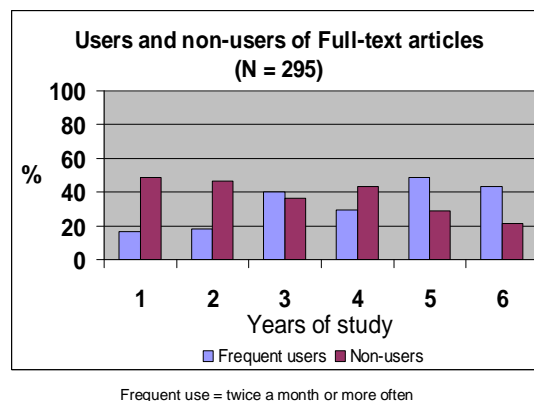
MEDLINE is the largest source for information from the biomedical journal literature with over 12 million references. Over 4,300 selected journals from 1966 to date are covered. MEDLINE can thus be considered as a primary channel to scientific information resources for medical students.

How often students do MEDLINE searches?



How often students browse original articles in Full-text?

MEDLINE is a primary source for biomedical journal literature. However, using MEDLINE does not necessarily mean that the articles are also read. The students may just search the articles and skim through the abstracts without reading up on the full-text articles. Hence, we also asked how many of the students actually use the full-text articles for their studies or research.



Conclusions

- MEDLINE searches and the use of full-text articles increase towards the end of the studies
- Clear difference can be seen between the first two years (preclinical phase) and the rest of the studies (clinical phase)
- In the clinical phase the students are doing more independent work (e.g. theses, own patients). Then the students need more intensive clinical knowledge, which is attained by clinical training and reading articles of clinical research
- The high proportion of non-users of full-text article suggests that the use of these primary scientific information resources should be encouraged in the curriculum. Additionally, the skills of students to read and utilize these texts should be continuously maintained and improved.