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8-29-2008

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Trivedi, Mayank Jasvantray Dr and Joshi, Anuradha, "Computer and Internet Use by Health Care Professionals in a Rural Medical College in India" (2008). *Library Philosophy and Practice (e-journal)*. Paper 204.
http://digitalcommons.unl.edu/libphilprac/204

Library Philosophy and Practice 2008

ISSN 1522-0222

Computer and Internet Use by Health Care Professionals in a Rural Medical College in India

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Introduction

The use of computers and the Internet by people in all walks of life increases day by day. The Internet plays a crucial role in access to information resources. Edward and Bruce (2002) observe that, "sources of information and other opportunities available via the Internet are increasing exponentially. This is reflected in the steady increase in the use of computers and the Internet in teaching and learning. The evolving nature of medical knowledge and technology requires medical students to develop computer skills (Tillman 2003).

Material and Methods

This cross-sectional descriptive study was conducted June 2007 to August 2007 among faculty at Pramukhswami Medical College (PSMC) and Shree Krishna Hospital (SKH) of H M Patel Centre for Medical Care, Education, and Research (HMPCER), Karamsad, Gujarat, India. Those surveyed included a total of 194 health care professionals (116 male, 78 female). A printed questionnaire sought information about formal computer training, use of computer, and use of Internet search engines. Questionnaires were distributed to faculty in their respective departments.

The data was analyzed using the following parameters:

- Use of computer
- Computer knowledge
- Formal training
- Role of the library in graduate teaching and research

Results

Table I

Participant gender and rank

Designation	Male	Female	Total
Professor	10	17	27
Additional Professor	20	05	07
Associate Professor	09	09	18
Assistant Professor	22	19	41
Tutor	12	12	24
Resident	61	16	77
Total	116	78	194

Table II

Computer knowledge

Proficiency	Professor	Additional Professor	Associate Professor	Assistant Professor	Tutor	Resident	Total
NC	--	--	--	1	0	1	02 (1.03%)
JC	1	06	07	29	16	53	124 (63.91%)
WC	04	01	11	11	09	20	56(28.86%)
Total	05	07	18	41	25	74	182(92.77%)

NC: "Not Conversant"

JC: "Just Conversant"

WC: "Well Conversant"

Table III

Formal training

Professional Skills	Professor	Additional Professor	Associate Professor	Assistant Professor	Tutor	Resident	Total
Trained	12	02	02	11	02	07	36
Not trained	05	05	06	13	23	69	148

Table IV

Use of computer for academic requirements

Mode of Use	Professor	Additional Professor	Associate Professor	Assistant Professor	Tutor	Resident	Total
Teaching	17	06	18	36	21	54	15.2 (78.35%)
Dissertation	--	01	03	00	01	07	12 (6.18%)
General knowledge	16	05	14	23	17	28	103 (53.09%)
E-mail/chatting	00	00	00	02	02	03	07 (3.60%)
Communication	09	05	08	20	15	27	84 (43.29%)

Table V

Use of search engines

Search Engine	Professor	Additional Professor	Associate Professor	Assistant Professor	Tutor	Resident	Total
Yahoo	01	--	00	35	20	59	115
Google	02	01	03	37	23	70	83
Both	14	05	14	34	21	57	145

Discussion

The survey found that while computer use was high at the two institutions, computers were being used by clerical staff for writing official letters, rather than being used by health care professionals for academic purposes.

More than three-fifths of respondents said their level of computer literacy level was "just conversant," with nearly 30 percent "well conversant." The fact that more than 90 percent have some level of computer knowledge is comparable to the 98 percent of physicians at the University of Pennsylvania Medical School (Parekh, Nazarian, Lim 2004), and 96 percent of medical and dental students in a Nigerian teaching hospital (Ajuwon 2004)

While most respondents had some computer knowledge, more than three quarters had no formal comoputer training. A 2004 study by Banga and Padda found that more than 95 percent of health professionals surveyed desired formal training.

The respondents use computers to access online journals, teaching materials, and dissertations, as well as for communication through e-mail and other tools, which is aligned with the findings of Asemi (2005) and Ajuwon (2004). Overall, teaching was the primary purpose (78.35%), i.e., for obtaining health information for students and patient care. Ajuwon (2006) found that 90 percent of respondents sought health information for academic purposes.

Conclusion

This study looks at the use of computers by health care professionals and found that the use was limited to tasks like looking for information for teaching or patient care, which is congruent with the findings of Inamdar and Rotti (2004).

The study reveals the need for formal training for all levels of staff. Library professionals on campus can take the initiative to improve and expand Internet searching and use. Librarians might prepare a list of subject websites, data useful to researchers, link to free online databases, and so on, and place them on the library website. As discussed by Blumberg and Sparks (1999), an information literacy program provided by the library is also crucial to expand the knowledge and activities of faculty and students.

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