# ONLINE HEALTH INFORMATION – PERSPECTIVES & PRACTICES AMONG PROFESSIONAL STUDENTS IN BHUBANESWAR CITY, ODISHA

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#### ABSTRACT

Web based information has become extremely popular among all professionals who use computers. So much so that even health information which used to be the foray of health professionals is now being sought on line. There are few publications which have explored the utility of computers in professional streams but none have focusedly dealt with this double edged sword. A lot of lifestyle issues which are now predominant in this age group and who perhaps want to ensure anonymity seek solutions online. Our study targeted three schools ie medical, engineering and law students who get laptops during their course curriculum. Nearly 73% of the 416 study recruits admitted to seeking online health information. 80% of the females in our study relied on this source of information. The topics surfed are predominantly regarding diet and lifestyle, the males probed more on alcohol and smoking addiction. Only 30% of them referred to a health professional to authenticate the information.

These results bring out largely that online health information should be sought only from reliable sites and a authentic and evidence based, simplified database should be provided to students counselors or libraries to address queries of this group.

**Keywords:** Online health information, Health websites, Lifestyle

# **BACKGROUND**

The internet has become a major information source including health, contending with traditional media, such as newspaper, radio and television. It has a lower cost as compared to paper based dissemination of information & also has an added advantage of being available worldwide instantly on demand. [1]

A summary of the Pew Internet and American Life Project datasets indicated an upward trend in online health information seeking [2]. Recent studies reported that four in ten adults and one in four adolescents had searched online information.[3] To meet this growing demand of online medical & health information, the internet has expanded swiftly. It provides volumes of health information for consumer health education[4] and has the potential for improving individual health[5,6]. It offers online health information through various different formats, including text-based health information, e-mails etc.

However, as the internet is flooded with a multitude of online health information, which includes overuse of technical language, inaccurate or misleading information, disorganised collection of medical information & lacks regulations on its content, it is difficult to ascertain the quality & authenticity of such information.

Previous studies done in the west [7,8] & other parts of India [1,9,10,11] have well recognized the rapid growth of internet use among students for access of information. However, not many have quantified it in terms of online health information. Given the easy availability of personal computer in the academic curriculum & 24\*7 access to the

internet in KIIT University, the current study endeavours to explore the online health seeking behaviour of professional students, with the following objectives,

- (a) To assess the pattern of internet based health information use by university students of Bhubaneswar &
- (b) To find the factors determining the search for online health information practices and perspectives of these students regarding contents of such information.

### **MATERIALS & METHODS**

The present cross-sectional study was carried out in KIIT University, Bhubaneswar during Oct2013-Nov 2013. KIIT University is a world class University; it has 28 schools offering more than 100 academic programmes for 20,000 students with an independent campus for each stream of education. The physical infrastructure is replete with fully residential, AC WI-FI & eco-friendly wireless campuses, 24\*7 central library & reading room, with round the clock internet connectivity in each campus.

Ethical clearance was sought from the KIMS Institutional Ethical committee. Out of the 28 schools, only those schools which permitted official use of a laptop in their curriculum & the same was granted to them were included in the study after getting permission from the appropriate authority. Schools pre-occupied with examination were excluded. The professional courses which adhered to the above mentioned inclusion criteria i.e M.B.B.S, Law; mechanical engineering were finally selected for the study.

Since there was no previously published study of a similar nature, the proportion of students who seek online health information was assumed to be 50%. Assuming a relative error of 10% & a 10% non-response rate, the sample size was approximated to be 400. All the first year students from Law/M.B.B.S/Mechanical engineering were included in the study and were explained the purpose of the study. Only those willing to participate in the study & gave written informed consent were finally included in the survey. Data was collected using selfadministered semi-structured questionnaire covering information on personal details, internet use, online health seeking behaviour & dependency on such information. Anonymity & confidentiality was assured. The data was analysed using epi-info.

#### RESULTS

The present study included 416 students with varied professional courses viz. MBBS (142), Mechanical Engineering (139) and Law (135) as study population. The mean age of the study subjects was 18.7±1.3 years. The female students constituted to 224 (53.8%) amongst the total respondents. Majority of the students (62%) stayed in hostel while 38% students were day-scholars.

Table-1 shows the computer and internet related characteristics among students. All students reported use of computers (100%) while overall 94% students reported access to the internet. The mean age (with SD) of the students when they first operated computer and first possessed a computer (desktop/laptop) was  $12.5\pm3.34$  years and  $16.9\pm2.4$  years respectively.

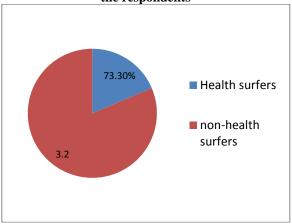
Table 1: Computer & Internet related characteristics

Characteristic	Medical	Law	Engineering
	Students	Students	Students
Computer	(N-142)	(N- 135)	(N-139)
Related			
Characteristics			
Computer			
knowledge			
gained by			
Formal	45(31.7%)	51(37.8%)	59(42.4%)
training			
programme			
Self/peer-	97(68.3%)	84(62.2%)	80(57.6%)
learning			
Impact of			
computer on			
studies			
Positive	55(38.7%)	43(31.9%)	65(46.8%)
impact			
Negative	27(19%)	21(15.6%)	13(9.4%)
impact			
Neutral impact	60(42.3%)	71(52.6%)	61(43.8%)
Access to	136(95.8%)	130(96.3%)	135(97.1%)
internet			
Internet	(N-136)	(N-130)	(N-135)
Related			

Characteristics			
Place of			
primary			
internet access			
Home/hostel	112(82.4%)	102(78.5%)	123(91.1%)
Campus Labs	18(13.2%)	20(15.4%)	8(5.7%)
Others	6(4.4%)	8(6.1%)	4(3%)
Hours of			
internet			
use/week			
<3	6(4.4%)	5(3.9%)	3(2.2%)
4-7	11(8.1%)	9(6.9%)	5(3.7%)
>7	119(87.5%)	116(89.2%)	127(94.1%)
Level of			
experience			
with the			
internet			
Very	67(49.3%)	61(46.9%)	88(65.2%)
experienced			
Somewhat	49(36%)	59(45.4%)	41(30.4%)
experienced			
Not	20(14.7%)	10(7.7%)	6(4.4%)
experienced			
Use of internet			
N*			
Social	112(82.4%)	110(84.6%)	118(87.4%)
networking			
Academics	93(68.4%)	71(54.6%)	67(49.6%)
Entertainment	78(57.4%)	85(65.4%)	92(68.1%)

<sup>\*</sup>multiple responses

Figure 1: Distribution of Health –Surfers amongst the respondents



A total of 305 (73%) of the 416 respondents were found to be health surfers i.e reported to have looked for health information online in the past 6 months as seen in fig-1. There was no statistically significant difference noted among the various professional courses with use of the internet for obtaining health information ( $\chi^2$ - 0.28; d.f-2;p-0.8). However, significantly more female students (80%) than male students (65.6%) obtained health information online ( $\chi^2$ -10.07; d.f-1: p-0.001).

Table 2: Online Health Information Seeking

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Characteristics	N(305)			
INTERNET SEARCH TOOLS(N*)				
Search engine	224(73.4%)			
Health websites	112(36.7%)			
University/hospital affiliated websites	26(8.5%)			
REASONS FOR SEEKING ONLINE HEALTH INFORMATION(N*)				
Surfed for disease specific information	142(46.6%)			
General Information on healthy lifestyle	206(67.5%)			
Clarify/Cross-check doctor's prescription	48(15.7%)			
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Information on medications/health services	65(21.3%)			
HEALTH TOPICS RESEARCHED (N*)				
Nutrition/Diet	202(66.2%)			
Non-communicable diseases	98(32.1%)			
Smoking/alcohol	225(73.8%)			
Skin and beauty	118(38.7%)			
Medication	59(19.3%)			
Mental health	38(12.5%)			
Sexual health	133(43.6%)			
FREQUENCY OF FINDING ONLINE HEALTH INFORMATION(N)				
Always	157(51.5%)			
Sometimes	124(40.6%)			
Never	24(7.9%)			
USE OF ONLINE HEALTH INFORMATION(N)				
Improve your lifestyle	221(72.5%)			
Counter check doctors prescription	59(19.3%)			
Purchase over counter drugs	25(8.2%)			
*M-14:1				

<sup>\*</sup>Multiple responses

Figure 2: Impact of Online Health Information

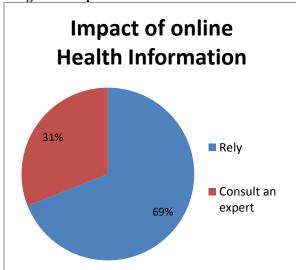
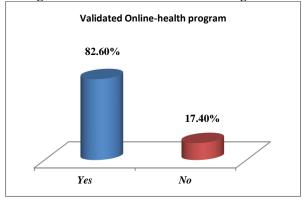


Figure 3: Validated online Health Program



## CONCLUSION AND DISCUSSION

The current study was done among 416 students from 3 schools of an University ie Medical, Engineering and Law. Nearly 67% of the respondents admitted to searching general health information online. However 69% of them would still validate the information collected by consultation with an expert. Bavakutty and Salih (1999) conducted a study at Calicut University which showed that students, research scholars and teachers used the Internet primarily for the purpose of study, research and teaching<sup>11</sup>. Most of the studies cited in the references assessed internet use among users for the popular reasons known like email and teaching and reference search. But our study wanted to alert against the silent use of internet to surf for health information. This trend is increasing among professionals and they feel it can save them a consultation and increasingly encouraging a culture of self-treat. This trend is fine as long as it the user is able to pick up authentic information. But often online information is misleading and creates health fads on popular topics like weight loss, sexual habits etc. This has come out very strongly in this study where 72% surf sites only for lifestyle planning and only 31% of them cross check with doctors. Hence there is a rising need of developing a validated online health program suited for this group which should provide them scientific and evidence based facts and still never undermine a doctor's consultation.

#### REFERENCES

- P. Lal, R. Malhotra, C. Ahuja, G. K. Ingle Internet use Among Medical Students and Residents of A Medical College of North India .Indian Journal of Community Medicine Vol. 31, No. 4, October-December, 2006
- Rice, R.E., Influence, usage and outcomes of Internet health information searching: multivariate results from the Pew surveys. Int. J. Med. Inform. 75:8-28, 2006.
- Yan, Yuk Yee. "Online Health Information Seeking Behavior in Hong Kong: An Exploratory Study." Journal of Medical Systems 34.2 (2010): 147-153.
- Wilkins AS. Expanding Internet access for health care consumers. Health Care Manage Rev. 1999;24:30–41.
- Eng TR, Maxfield A, Patrick K, Deering MJ, Ratzan S, Gustafson D. Access to health information and

- support: a public highway or a private road? JAMA. 1998;280:1371–1375.
- Robinson TN, Patrick K, Eng TR, Gustafson D. An evidencebased approach to interactive health communication: a challenge to medicine in the information age. JAMA. 1998;280:1264–1269.
- Anderson KJ. Internet use among college students: an exploratory study. J Am Coll Health. 2001;50:21–26.
- 8. Jones S. The Internet Goes to College: How Students Are Living in the Future With Today's Technology. Washington, DC: Pew Charitable Trust; 2002.
- Inamdar SC, Rotti SB. Computer use among medical students in an institution in southern India. Natl Med J India 2004; 17: 8-10.
- Unnikrishnan B, Kulshrestha V, Saraf A, Agrahari A C, Prakash S, Samantaray L, Parida APattern of computer and internet use among medical students in Coastal South India. South East Asian Journal of Medical Education Vol. 2 no. 2, 2008.
- Bavakutty, M., & Salih, T. K. M. (1999). Internet services in Calicut University. In National convention on academic libraries in the Internet era (pp. 37–44), Organized by INFLIBNET, Ahmedabad, 18–20 February.