Use of the Internet as a resource of health information by patients: A clinic-based study in the Indian population

Akerkar SM, Kanitkar M, Bichile LS

Department of Medicine, Seth G.S. Medical College, and K.E.M. Hospital, Parel, Mumbai - 12, India

Correspondence:
Shashank M. Akerkar, MD
E-mail:
Shashank77_2000@yahoo.com

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ABSTRACT

Background: There is abundant literature documenting that the Internet is fast changing the way patients access health-related information, learn about their illnesses, and make healthcare- related decisions. However, there is hardly any data regarding Indian patients accessing health-related information available on the Internet.

Aims: To determine patients' use of the Internet as a medical information resource and to determine their experience, their perceptions of the quality and reliability of the information available.

Setting: The study was carried out in the outpatient clinic of an urban, tertiary care private sector hospital in November 2004.

Material and Methods: Our survey instrument consisted of an anonymous single-page questionnaire. Eight hundred and eighty consecutive adults aged 18-70 years, attending the general outpatient clinic of a tertiary care private hospital completed the questionnaire.

Results: Two hundred and eighty-one (32%) patients acknowledged surfing the Internet, while 75% (212/281) of them acknowledged that they accessed health-related information. Amongst those who accessed the Internet, 130 (61%) found the information on the net to be of average quality. Almost all patients (211/212) felt that the information served the purpose and 95% (201/212) also found also found it to be reliable. Only 7% (21/281) patients were aware of the presence of any quality standards pertaining to health information sites and none could name any accreditation standard.

Conclusions: One in four patients attending the private set-up is using the Internet for health information. A majority of patients find the information on the net reliable and of good quality. Awareness about health information quality standards is a rarity.

KEY WORDS: Internet, search engine, Internet health information

The sight of patients arriving to our clinics with printouts of information they found on the Internet is definitely not a new thing for us. Internet is fast revolutionizing the way patients access healthcare-related information, learn more about their maladies, and make healthcare-related decisions. Health information seekers on the net have exponentially increased from 54 million in 1998 to 110 million (US figures) in 2002 and are ever increasing.[1] Numerous clinic-based studies have shown that about 25% of patients search the Internet for medical information.[2-3] The Internet is also proving to be a major influential force with a significant majority finding the information trustworthy[4] and more than 70% consumers saying that the information on the net has influenced their treatment decisions.[5]

While reviewing the global scenario,[6] we noticed that there is no information available about the Indian scenario. Non-availability of this information could put treating doctors at a distinct disadvantage. Hence, we carried out a study to determine patients' use of the Internet as a medical information resource, to determine their web searching experience and their perceptions of the quality and reliability of the information available on the net as well as the consequences of the same on the further patient management decisions.

Material and Methods

In this study conducted in November 2004, 900 consecutive subjects attending the outpatient clinic of an urban private tertiary care hospital were requested to fill up the survey instrument (Annexure 1), an anonymous single-page questionnaire consisting of 18 questions (5 demographic, 13 Internet-related). The instrument explained the voluntary nature of participation and implied consent by completing the questionnaire. The Internet-related questions sought information about Internet usage in general and for health-related issues, and their views regarding the quality of information and its reliability, among other matters.

Results

Eight hundred and eighty of the 900 subjects (range: 18-70 years, mean: 41.7+ 13.27 years) approached filled up the questionnaire. Two hundred and eighty-one (32%) of the respondents acknowledged surfing the Internet. Eighty-five (30%) surfed the Internet every alternate day and 146 (52%) patients spent an average of 1-3 hours surfing the Internet per week.

Seventy-five per cent (212/281) of these patients acknowledged the use of Internet for medical information (24% of the total patients).

A search engine was the most common (196/212; 92%) starting point in their search for medical information. Only three patients indicated that they looked for specific sites for the particular information.

While most (148, 70%) looked up the Internet on their own, only 20 (9%) respondents were asked by their physicians to search the Internet for medical information..

Ease of locating information on the Internet: One hundred and seventy-one (81%) respondents found it easy to locate the information they required on the Internet and 195 (92 %) found that the search engine took them to a correct site.

Perceived usefulness and reliability of the health information on the Internet: Almost every patient (211/212%) felt that the information on the Internet served the purpose and 201 (95%) found the information reliable, as well.

Influence of the net based information: Information obtained from the Internet induced 131 (62%) patients to ask questions to their physicians and stimulated 59 (28%) even to seek a second opinion based on this information. One hundred and ninety-four (69%) patients came across sites giving information about various 'wonder cures'.

Awareness of quality standards: Only 21 (7%) patients were aware of the presence of any quality standards pertaining to health information sites; however none could name any accreditation standard.

Discussion

The number of Internet users in India is growing at a rapid pace. NASSCOM (National Association of Software and Service Companies) Internet survey showed an active subscriber base of 1.1 million in March 2001. The survey did forecast that the number of Internet subscribers would grow to over 50 million by 2004-2005.[7]

The study demonstrates that even in a developing country like India, 32% of the patients attending a private clinic of a tertiary care centre in urban setting are surfing the Internet and 75% of them accessing the Internet for seeking medical information. Awareness about specific medical sites was, in general, very low and a search engine was the most trusted stepping-stone for most patients. Ninety two per cent patients were happy with the search engine's results in locating their information.

In general, the majority was also happy with the quality of information. A significant proportion found the information reliable, thought that it did serve a purpose and even took a second opinion based on the same. Similar findings have been observed in various studies across the globe.[5,8] This is in sharp contrast with most data emanating from studies conducted by clinicians that shows the variable quality and unreliable nature of the net-based information.[9-11] Our study also shows that 69% (194/281) have come across sites with 'wonder cures'. This clearly reflects on the numerous potentially false claims made on various sites. At the same time, the surfer is also intelligent enough to differentiate these claims from valid treatment options.

The study focuses specifically on patients' awareness of quality of health information available on the world-wide-web. Awareness about the quality standards on the Internet is very poor and is clearly seen by the fact that none could name such a standard.

Our study, like most other studies, shows that only a minor proportion of patients (9%- our study, 0-5% other studies)[2,3,8] are being referred by physicians to the Internet for medical information. Thus, the growth in patients' use of the Web as an information resource does not appear to be driven by treating physicians. The behaviour is largely self/ friend-initiated and the 'easy to search' experience is fuelling it further. Medical professionals must acknowledge the growing importance of electronic health information. If not by ourselves, we will be dragged to the Internet by our patients. The discrepancy between the patient's perception about the quality of information and the technical data about the same generated by the various studies is definitely worrisome. To avoid the problems arising out of the low quality information available on some sites, we should develop strategies to positively view such information, direct such patients to reliable sites and make them aware about the quality standards for medical sites. The study did have its share of limitations. Having been conducted in one centre, the data generated may not be representative of the whole region, let alone entire country.

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Annexure 1: Survey Instrument

This study is being conducted to understand the use of the Internet by Indian patients. This study will go a long way towards providing better medical information for patients on the net. Your identity will be kept confidential. Participation is purely optional. Please tick the answers from the options mentioned.

1. Initials:
2. Age
3. Sex: M/ F
4. Educational status:
5. Income group: <1,00,000/yr, 2-4 lacs/year, >4 lacs/ year
6. Do you surf the net yes/ no
   How many days in a week do you surf the net? Daily/ alternate day/ twice a week/ once a week
   How many hours do you surf the net? Less than 1 hour/ day, 1-2 hrs/ day, 2-3 hrs/ day, > 3hrs/ day
7. From where do you access the net? Office/ home/ both
8. Why do you use the net? Mail/ chat/ shopping/ technical information
   Have you ever used the internet for medical information? Yes/ No
9. When you used the net for medical information; how did you start? Search engine (Yahoo, Google, MSN, other_____)/ specific site _____
10. Did the search engine take you to the site with the information you were looking for? Yes/ No
11. Did you look up the information on the net – yourself/ your doctor asked you to do so/ your friend asked you to do so
12. What was your experience? – You could get the information on the net easily/ you found it difficult to locate the information on the net.
13. How did you find the information on the net? Good quality/ acceptable quality/ poor quality
14. Did the information on the net serve any purpose? Yes/ No
15. Did you ask your physician any questions based on the information you found on the net?
    Did you take a second opinion based on the information you found on the net?
16. Did you fid the information on the net reliable? Yes/ No
17. Do you know about any quality standards for the medical information on the net? Yes/ No. If yes, can you name the same?_____
18. Did you come across any site marketing wonder cures (Claims that you feel are potentially false based on logic & the information you found on the given site)?