Assessing the value of the internet in health improvement

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The internet is a powerful tool that provides easy access to information. Many people access it for health information and bring the material gathered to health appointments. However, the information may not always be correct or adequately monitored for quality. This could lead to some of it being harmful. This article examines whether or not the internet will enable us to lead healthier lives. The need for a quality label, how professionals must become adept at using the internet, the possibility of a digital divide exacerbating health inequalities and the dangers of misusing the internet’s interactive elements are examined.

The internet provides easier access to health information than ever before, but is it enabling us to lead healthier lives? It has been estimated that it took 30 years for people to get used to the idea of radio, approximately 13 years to be gripped by television and yet the internet has been accepted in about five years (Adams, 2000). The internet seems to be everywhere and everything appears to be on it.

Virtual reality and the internet are becoming key components in our lives and consequently telemedicine and telecommunications can be involved in almost every area of health care — from consumer and provider education to the diagnosis and treatment of disease (Ackerman, 2001). However, having health information at one’s fingertips may not always enhance our lives and could lead to a number of harmful, unhealthy problems. Care must be taken when accessing information (box 1, p28), though there are many reliable sources of information (box 2, p29).

Who accesses health information?

There are more than 605 million internet users worldwide (Nua Internet Surveys, 2002), and over 34 million active users in the UK (Nielsen NetRatings, 2002). Internet penetration continues to be closely linked to age and income — it is most popular among younger and middle age groups, and higher income groups. Ninety-three million Americans or 80 per cent of adult internet users have searched for at least one of the 16 main health topics online (Fox and Fallows, 2003) (box 3, p30). Eighty-five per cent of women and 75 per cent of men using the internet have searched for at least one of the major health topics (Fox and Fallows, 2003).

People seeking health information on the internet do so to become informed, to prepare for appointments and surgery, to share information, and to seek and provide support. There are not many studies exploring why patients and carers use the internet to acquire health information, or whether they find it helpful and easy to use. One likely reason is that it provides an easy method of acquiring information. Additionally, the internet may offer a ‘second opinion’ without the difficulties of a referral.

The internet is empowering health consumers and users of services to find information about health services and treatments, and supporting self-help and patient choice. This is because it is accessible and doctor-patient relationships can lack attention to detail and the personal touch. However, those seeking information on the internet have reported that their experiences of health services have altered along with their relationship with their doctors, but not always for the best (Fox and Fallows, 2003).

The balance of knowledge between patients and health professionals

The balance of knowledge between patients and health professionals is altering because of the internet, enabling patients to become more involved in the health care decision-making process. However, there is growing concern that the internet is creating a new health inequality; a ‘digital divide’. This divide refers to the gap between those who access, and therefore use, new technologies and those who do not. The latter are already

BOX 1. ASK THESE QUESTIONS WHEN ACCESSING HEALTH INFORMATION WEBSITES

- Who is publishing the material?
- How often is the site updated?
- What qualifications do the authors hold?
- Is the material peer reviewed?
- What are the website’s guidelines to authors?
- How can you contact the website owners to enquire about credibility of the material?
- Who/what is the source of the material accessed?
- What is the level of evidence required for information published on the website?
BOX 2. USEFUL HEALTH INFORMATION

- The Cumulative Index to Nursing & Allied Health (CINAHL) database is US-based and focuses on subjects related to nursing and allied health. www.library.ucsf.edu/db/cinahl.html
- Department of Health – providing health and social care policy, guidance and publications. www.dh.gov.uk
- National Electronic Library for Health – programme works alongside NHS libraries to create a digital library for NHS staff, patients and the public. www.nhsdirect.nhs.uk
- NHS Direct – aims to enhance access to care and health information for the general population. www.nhsdirect.nhs.uk
- NMAP – provides free access to a searchable directory of carefully selected and evaluated, quality internet materials in nursing, midwifery and the allied health professions. This database is updated on a weekly basis. www.nmap.ac.uk
- OMNI – provides free access to a searchable directory of handpicked and evaluated, quality internet resources in health and medicine. This database is updated weekly. www.omni.ac.uk

The quality of information on the internet

The internet has increased the quantity of information available without necessarily enhancing the quality. Websites should specify the level of evidence required for information they publish. Even on credible websites, information may not always be current or accurate. In this respect it would be useful for websites to identify the evidence on which the information is based as well as the source of the information and its credibility.

There is a range of tools that can be used to assist in evaluating and rating the quality of websites, for example, quality labels, codes of conduct and user guidance systems. A universally recognised sign or quality logo (similar to the security padlock which indicates a ‘secure’ site) signifying that health information contained on a site meets certain set standards would be beneficial for patients, carers and health professionals. It would ensure that patients and carers would be assured about the reliability and validity of the information and it would assist health professionals when guiding patients and carers as well as providing them with clearly robust material to use in their practice. Until such a quality mark is in existence it is essential that patients and carers are encouraged to seek out information in a critical manner.

Positive impact of the internet

The internet has the ability to improve lives and link the isolated, whether they are people with learning disabilities, older people, people with mental health problems, nurses, other health professionals or members of the public. This presents a challenge for those educating health professionals to ensure they have the skills to help people who are often marginalised to participate.

The internet can be used as a resource for patient teaching. Blair (2002) suggests that learning disability nurses could use the virtual world to support people who have undergone treatment at their own homes. This could reduce anxiety and may provide people with an enhanced opportunity to make more informed choices. An example of this would be using the ‘virtual dentist’ to prepare a client for dental treatment before visiting the actual surgery. Such an approach could be adapted to meet the needs of the many different groups of people. Caution is needed though as reliance on the virtual world may make it hard for people to orientate themselves to real-world settings.

Educating the new health professionals

Those educating the next generation of health care professionals must make sure they are effectively equipped to use the internet. The NHS Plan (Department of Health, 2000) calls for the use of personal electronic health records to improve patients’ knowledge and involvement in their treatment and care. The plan also commits the government to invest in information technology to enable services to be provided ‘more conveniently for patients’. Central applications to be developed between 2003 and 2005 include electronic appointment booking, electronic prescribing and electronic patient records for acute, community and primary services. As a result there is a growing urge for health professionals to construct their own patient-oriented websites (Clement et al, 2002). For example, The Royal College of Speech and Language Therapists (RCSLT) launched a website, Talkingpoint, which was developed in partnership with two charities to provide information about speech, language and communication difficulties in children. ‘Talkingpoint’ (www.talkingpoint.org.uk) has been set up in response to research that showed awareness and understanding of speech and language difficulties is poor, and that people find it hard to access relevant information. Another example is the Department of Community Health Sciences at St George’s Hospital Medical School in London, which has set up ‘Drs Desk’ (http://drsdesk.sghms.ac.uk), a site aimed at patients and health practitioners that provides online material including drug information, journals and references.

REFERENCES


Fox, S., Fallow, D. (2003) Internet health resources: health searches and email have become more commonplace, but there is room for improvement in searches and overall internet access. Available from: www.pewinternet.org/report_display.asp?r=95


This article has been double-blind peer-reviewed.
care trusts. The creation of NHS Direct as first a telephone service and then as an online resource signalled the government’s intention to use technology to improve the accessibility of care and information (www.nhsdirect.nhs.uk).

Education and training in the use of the internet and other electronic media in professional practice must start at the beginning of professional programmes and carry on into continuing professional development courses. The push towards evidence-based practice makes accessing the latest information vital. The internet is a good medium for this purpose. Blair (2002) highlights that it is imperative students are educated to use the internet and other electronic media in order for future health professionals to meet the challenges and expectations of patients and clients over the next decade and beyond.

While teaching in the use of the internet does take place, it is in the main ad hoc. Appropriate ‘start up’ modules/courses need to be devised. Such modules/courses should also combat the ‘fear factor’ that exists among some health professionals in relation to the use of the internet, computers and other electronic media. However, one of the benefits of learning online is 24-hour access to a virtual classroom and information resource. Access and time to learn to use electronic technologies is essential. This should lead to an effective use of technology and healthier lives for us all.

**Conclusion**

Although the knowledge obtained from the internet can empower patients and carers, there are concerns about the quality and quantity of information, how patients and carers use it and how it can affect them. Patients and carers must be critical of information obtained via the internet. Without such critical analysis, use of the internet for accessing health information could be detrimental. A universally recognised quality mark would assist in addressing these concerns. It is vital that we question the quality and quantity of health information available on the internet in order to ensure that such knowledge is delivered in a manner that will enable us to lead healthier lives.

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**BOX 3. HEALTH TOPICS SEARCHED ONLINE**

<table>
<thead>
<tr>
<th>HEALTH TOPIC</th>
<th>INTERNET USERS WHO HAVE SEARCHED FOR INFO ON IT (%)</th>
</tr>
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<tbody>
<tr>
<td>Specific disease or medical problem</td>
<td>63</td>
</tr>
<tr>
<td>Certain medical treatment or procedure</td>
<td>47</td>
</tr>
<tr>
<td>Diet, nutrition, vitamins or nutritional supplements</td>
<td>44</td>
</tr>
<tr>
<td>Exercise or fitness</td>
<td>36</td>
</tr>
<tr>
<td>Prescription or over-the-counter drugs</td>
<td>34</td>
</tr>
<tr>
<td>Alternative treatments or medicines</td>
<td>28</td>
</tr>
<tr>
<td>Health insurance</td>
<td>25</td>
</tr>
<tr>
<td>Depression, anxiety, stress or mental health issues</td>
<td>21</td>
</tr>
<tr>
<td>A particular doctor or hospital</td>
<td>21</td>
</tr>
<tr>
<td>Experimental treatments or medicines</td>
<td>18</td>
</tr>
<tr>
<td>Environmental health hazards</td>
<td>17</td>
</tr>
<tr>
<td>Immunisations or vaccinations</td>
<td>13</td>
</tr>
<tr>
<td>Sexual health information</td>
<td>10</td>
</tr>
<tr>
<td>Medicare or Medicaid</td>
<td>9</td>
</tr>
<tr>
<td>Problems with drugs or alcohol</td>
<td>8</td>
</tr>
<tr>
<td>How to quit smoking</td>
<td>6</td>
</tr>
</tbody>
</table>

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[Box 3. Health Topics Searched Online]