Accessing health information on the Internet

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Article points

1. People are increasingly using the Internet as a source of health information.
2. Many websites offer health advice, the quality of which is not always assured.
3. Healthcare professionals are increasingly expected to be "Internet savvy".

Keywords
- Health information
- Information-seeking behaviour
- Internet

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With the advent of the Internet, health information has become more widely available, but questions remain over the appropriateness, accessibility, sheer volume, and quality of the materials. Here, the author provides some background on the health information-seeking behaviours of patients, and a discussion of how the healthcare professional can be an active and positive partner in the process.

In 2006, The Diabetic Foot Journal published the results of a small study (Ellis and Ellis, 2006) that aimed to evaluate UK-focused consumer health websites' information on diabetes foot care against the then 'gold standard' (Taking Care of Your Feet; Diabetes UK, 2000). The study was set in the context of the NHS increasingly encouraging patients to be proactive in becoming informed about, and taking responsibility for, their own health. The results of the study suggested that while there was indeed high-quality information about diabetic foot self-care available, it was not always easy to find.

Six years have passed since that publication and the influence of Internet-based health information has grown unabated. Two recent reviews of health information-seeking behaviour and health information sources (Anker et al, 2011; Daley 2011) concur that health providers and healthcare systems are encouraging and expecting service users to be proactive in decision making and management of their own health. Increasingly, health information is being sourced from the Internet.

Higgins et al (2011) noted that in 2009, 77% of UK households had Internet access, with 69% having broadband connection. But regardless of the increasing availability of the Internet as a source of health information, waiting rooms in most clinics, health centres, and hospitals display large quantities of written health information material. Yet, even among these traditional modes of health communication, it is uncommon now to find one that does not include an Internet address where more information can be found.

Longo et al (2010) report a USA-based qualitative study of health information-seeking behaviour among patients with diabetes. They demonstrated that individuals were aware of passively absorbing health information from the media, including the Internet. Milewski and Chen (2010) commented on a similar behaviour, noting that in their study, patients reported that they 'accidentally' obtained health information, picking it up sporadically from a variety of sources, including websites. Individuals also told how they 'weave their own information web' by using diabetes

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information sites, cookery sites with suitable recipes, and sites devoted to exercise, stress reduction, and so on (Longo et al, 2010). A strong message from the findings was that participants desired clear, easy-to-understand material, written without jargon.

Kaufman (2010) commented that patient self-management of diabetes enabled by information technology is becoming an important factor in the way providers deliver health care, remarking that readily available, inexpensive Internet access is diminishing geographic, economic, and demographic barriers to obtaining health information. However, among Milewski and Chen's (2010) sample of patients with type 2 diabetes only about half used the Internet.

Powell et al (2011) researched a large cohort of NHS Direct users (*n*=792) and found that the majority (71.2%) were under 45 years of age and were women (67.4%), with more than a third (37.7%) holding a university level education.

Powell et al's (2001) research suggests that motivating factors for seeking health information via the Internet were reassurance (for self or others), second opinion, greater understanding, and perceived barriers of accessing information by other means. The benefits of seeking information online were identified to be confidentiality, convenience, and coverage. No particular pattern emerged with regards to the challenges of using the Internet for this purpose, although mention was made of worry of misinterpretation of material, the sheer volume of material, and the fact that it was not personalised or contextualised. Daley (2011) suggests that weak Internet search strategies, spelling errors, and the use of slang or lay terminology may also hinder the finding of valid relevant health information.

Therefore, while there is a drive to encourage patients to be active partners in their own health and well-being, and to seek web-based information, issues of accessibility, readability, relevance of materials, unstructured searching, daunting volumes of information, and the impersonal nature of material are barriers in this process.

The phenomenon of "cyberchondriasis" – the relationship between anxiety about health and searching for health information online – is noteworthy here. Muse et al (2012) undertook a study to explore anxiety and health information-seeking behaviour in 187 participants (non-clinical, largely university students) who were rated with a validated anxiety measure, and were then asked to complete a questionnaire around their use of the Internet for seeking health information. Data from this study suggest that health anxiety might be increased by searching for health information online; the authors report that participants frequently used general search engines and specific health websites; medical search engines and message boards/support groups were used less frequently, except among those with high anxiety scores.

Muse et al's (2012) study was a small one and it is not possible to generalise their findings to either the general population, or the population with diabetes. Nevertheless, their findings highlight a potential issue of which all healthcare professionals should be aware.

This issue, taken with the data from Powell et al (2011) showing use of the seeking information for reassurance on the Internet, and the challenges of interpretation, suggest that encouraging patients to seek health information via the Internet can be a double-edged sword. Therefore, it is important to consider the implications of the "Internet-informed" patient from the perspective of the healthcare professional.

One could postulate that the increased availability of the Internet as a source of health information would decrease patients' dependence on healthcare professionals for information, and that Internet-obtained information may be perceived as the most up to date. Some research, and extensive anecdotal evidence, suggests that many patients bring Internet-derived health information with them to appointments with

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their healthcare professional(s) to inform, to corroborate, or to question (McMullan, 2006; Wald et al, 2007).

McMullan (2006) literature review concludes by noting that the healthcare professional–patient interaction should, when focused on Internet-derived health information, be a collaboration; these authors concur with Ellis and Ellis (2006) by viewing the role of the healthcare professional as being "informatics–savvy" and able to guide the patient to reliable and relevant information. Similarly, Wald et al (2007) stress the "partnership" aspect of finding and interpreting health information from the Internet, and comment on the need for healthcare professionals to be "Internet savvy".

How to help service users find useful, trustworthy health information

Government (e.g. NHS Choices [www.nhs.uk]; NHS Direct [www.nhsdirect.nhs.uk]) and large, recognised charity/patient group websites are key online resources for patients to gain information on their condition. These websites have the distinct advantage of a range of internal and external checks on their quality and readability. For diabetes care, Diabetes UK (www.diabetes.org.uk) remains an obvious choice and provides specific footcare information (www.diabetes.org.uk/guide-to-diabetes/monitoring/feet).

Another options for patients and healthcare professionals alike are health-specific search engines. An example of one such search engine that facilitates access to a range of quality-assured online materials is shown in *Box 1*. While search engines of this kind provide a range of resources for less experienced patients, healthcare professionals should consider the benefits of directing the more experienced or determined information-seeking patient to such sites. It provides them with a breadth and depth of information, while allowing both the healthcare professional and the patient the assurance that materials sourced through the site are quality assured.

Conclusion

Individuals continue to seek health information online; indeed, the healthcare system actively promotes such information-seeking behaviour. Issues around quality and relevance still abound, but the literature and common sense suggest that the healthcare professional should have the skills to guide patients to high-quality information, which is relevant to their condition, online. n

Box 1. Case example: Health on the Net Foundation

Established in 1995, the Health on the Net (HON) Foundation (www.hon.ch) is a non-profit, non-governmental organisation, accredited to the Economic and Social Council of the United Nations.

The HON Foundation aims to guide the deployment of useful and reliable online health information. In the face of the huge volume of healthcare information available on the Internet, the HON Foundation provides a multi-stakeholder portal for high-quality information. The site can be used in any of seven languages, and directs users to web-based content that has been carefully selected by the HON Foundation Medical and Research Team.

A test search used the search terms "diabetes and footcare", "diabetic footcare" and "diabetes and footcare education" resulted in a large list of sites available, some with narrated presentations, or good clear illustrations. A site appearing high in the list of "hits" is www.emedicinehealth.com, which offers patients the route to a UK-based sited, visually flagged with the Union Jack. This clearly signposts information relevant to the UK-based person with diabetes.