Current literature

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An annotated bibliography of articles relevant to the study and use of the Internet in the health care environment

Cader R, Campbell S, Watson D. ***Criteria used by nurses to evaluate practice-related information on the World Wide Web.*** *Comput Inform Nurs* 2003; **21**(2):97–102

The authors describe a qualitative study, using the grounded theory approach, which aimed to investigate how nurses evaluate nursing practice information on the Internet. A brief literature review introduces the main sets of criteria that had previously been designed for evaluating the quality of health and medical information, and the lack of criteria that relate specifically to nursing is noted. The article reports findings from the first stage of an ongoing doctoral studies programme, involving semistructured interviews of UK post-registration nursing students, as a result of which evaluation criteria were identified. According to the authors, criteria in five categories contributed new information to the evaluation process: publication source (trustworthiness and cultural identity); author background (clinical credibility); evidence-based (research as it refers to nursing); practice related (nursing care related, practice enhancement); and intuition, based on practitioner knowledge and experience. Additional individual interviews and focus group discussions in the second part of the study are intended to refine the emerging criteria further.

Eysenbach G, Powell J, Kuss O, Sa ER. ***Empirical studies assessing the quality of health information for consumers on the world wide web: a systematic review.*** *JAMA* 2002; **287**(20): 2691–2700

This article provides a systematic synthesis of the methodology and evidence employed in a large number of studies that have reviewed the quality of consumer-accessible health information on the Internet. Searches to identify such studies were conducted in a wide range of databases and other sources, including Medline and PreMedline, LISA, CINAHL, PsycINFO, EMBASE, SIGLE and Web of Science, as well as generic search engines (Google and Northern Light). From a possible 7830 items retrieved, 170 potentially eligible full articles were reviewed, 85 of which (corresponding to 79 different studies) met the predetermined inclusion criteria. The authors present quality criteria and methods used to evaluate Web sites. The majority of studies (70%) found that quality of information was a problem, and were more likely to do so the more rigorous the search and evaluation methods employed. The reported proportions of inaccurate Web sites were found to be associated with the level of evidence used as a criterion standard: the higher the level of evidence employed, the greater the percentage of Web sites that were found to be inaccurate. The authors offer a commentary on the findings and conclude that more research could usefully be focused on the nature and reasons for gaps existing between evidence-based medicine and health information on the Internet.

Jejurikar SS, Rovak JM, Kuzon Jr WM, Chung KC, Kotsis SV, Cederna PS. ***Evaluation of plastic surgery information on the Internet.*** *Ann Plast Surg* 2002; **49**(5): 460–465

To assess the accuracy of plastic surgery information on the Internet, the authors considered a commonly performed elective procedure (breast augmentation). The first 50 URLs retrieved from each of 6 commonly used search engines (Yahoo!, MSN, Go, Netscape, Lycos and AltaVista) were examined. 130 URLs were finally evaluated for accessibility, relevance and accuracy, the rest being rejected because they were duplicates, inaccessible, irrelevant or without medical information. Only 5 sites provided a reference to a scientific meeting, peer-reviewed publication or textbook. More than a third of the sites were found to contain false or misleading information, with a greater likelihood of errors appearing in sites that contained no information provided by healthcare professionals. The authors highlight the possibility that misinformation could influence the public's perception of the procedure and conclude that plastic surgeons may need to spend additional time with patients to dispel this.

Martin-Facklam M, Kostrzewa M, Schubert F, Gasse C, Haefeli WE. ***Quality markers of drug information on the Internet: an evaluation of sites about St John's wort.*** *Am J Med* 2002; **113**(9): 740–745

This study reports the result of a cross-sectional survey of Web sites about St John's wort, in which content quality was assessed, based on: (i) their stating depression as the only indication; and (ii) their indicating appropriate drug interactions with St John's wort. WebFerret was used to interrogate 12 search engines and portals, which included the most popular search tools at the time. In all, 208 unique sites were randomly selected for evaluation out of 4088 possible URLs (of 4422 originally retrieved). Of these, 22% satisfied condition (i) and a similar percentage condition (ii), but only 10% correctly mentioned both. Just 2 sites reported all interactions, except phenprocoumon, which was not indicated by any. The authors considered several evaluation criteria that may serve as indicators of reliable drug information. They concluded that although non-commercial Internet sites that reference scientific publications may be preferred when searching for drug information, nonetheless the content quality of such sites was still low.