

Evaluating the Quality of Depression Websites

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Abstract: - Over 40% of the one billion people globally using the Internet search for health information. Depression is reported to be the second most common cause of global disability by 2020. More people search for health information on depression than on cancer or heart disease, even though the latter have higher prevalence rates. However, the quality of this information is an issue. The authors have developed a Health Website Quality Checklist for the health information consumer, which is specifically tailored for evaluating depression information on the internet, as this is a highly sought after topic. Most criteria listings found were too cumbersome to use, overlapped in some aspects, but lacked others, and importantly, were not tailored to depression. This study is an important development given the growing prevalence of depression, the increasing number of Internet users and that a lot of people use the Internet specifically for searching on Health Information. Further research needs to be conducted to refine and validate the checklist used in this evaluation.

Keywords: Website, Quality, Depression, Internet, Checklist, Evaluation

1. Introduction

This paper presents a checklist of Quality Criteria for evaluating Health Information Websites available for sufferers of mild to moderate depression. As of 2006, over 1 billion people have Internet access [4]. Forty percent of Internet users use the Internet to search for health information, more than the proportion who use it for shopping (39%), banking (18%) or chat rooms (17%) [2]. More people search the Internet for information on depression than they do for cancer or heart disease, even though more people suffer from cancer or heart disease [8]. The aim of this study is to develop a quality criteria checklist for health information websites that focus on depression and related disorders that may be used to give web surfers an idea of the reliability and usefulness of current resources available.

2. Background and Rationale

Depression is a major global disease burden and is predicted to be the second most common cause of global disability by 2020 [1]. One in eight people will be treated for depression during their lifetime [5]. Globally, depression affects about 121 million people [9]. To ensure a comprehensive review, the aim of this study is to cover the major dimensions of quality criteria.

3. Aim

The aim of this study is to develop a set of quality criteria based on the published literature to date. This checklist may then be used to assess the quality of depression information websites that are currently available.

4. Determining a suitable and definitive set of quality criteria to be used for the evaluation

In order to construct a set of criteria for evaluating the quality of depression information on the Internet, a literature review was undertaken in two parts. In the first part, the authors identified criteria from published sources [5,6] that assessed general health information websites. In the second part of this investigation the authors specifically researched for criteria relevant and necessary for evaluating information on depression, with a view to developing a definitive tool for assessment of the quality of health information websites in this high disease burden topic area.

To identify the criteria to evaluate the general health information websites, the authors reviewed many sources. As expected, there was considerable overlap in the criteria, which showed that multiple authors generally agreed on the most important elements necessary to the evaluation. Such elements included accuracy, completeness, readability, design, site owner credentials (eg. Medically qualified professional?) and disclosure of ownership (eg. Website owner or designer; responsible party).

The most extensive review on the quality of general health information on the Internet was done by Eysenbach et al., (2002) who extracted the evaluation criteria used in 79 separate studies. These criteria, as well as all of the significant Internet health information quality initiatives were considered for inclusion onto the checklist. These included widely accepted initiatives such as the eHealth Code of Ethics, the HON Code, DISCERN and the American Medical Associations' Guidelines for Medical and Health information Sites in the Internet [6].

In order to create a manageable tool that would be useful for the consumer and also for the evaluation of depression websites for this study, the authors specified that the checklist would need a list that is simultaneously:

- covers all the major dimensions of quality
- manageable (easy to use)
- suitable for depression

Bearing these criteria in mind, the authors developed a checklist that covers the major dimensions of quality and is also manageable in terms of the number of criteria contained within it. They also wanted it to be practical and easy to use, so they designed it in such a way that it would fit into one self-contained datasheet that could take on average, approximately 30 minutes (20 to 40 minutes), depending on the design and content of the website of being evaluated, to complete.

4.1 Describing the Health Information Quality Checklist

The Bomba and Land Index [3] uses criteria which closely match those found in the 79 studies reviewed by Eysenbach et al. Their index is created by weighting and adding the scores of multiple rating scales. Another feature of interest is that it has a rating scale giving more weight to content, usability, reliability and transparency over the more technical features such as disclaimers and privacy policies. This is more useful than other studies on quality which measured the features on a dichotomous scale rather than a weighted index. Details of this index are given in the measurement techniques section below.

Additionally, for the depression component of the current checklist, the authors compiled features from published literature which are important to distinguish a better quality website from the average. Such features include:

- whether the site offered primarily static general information or interactive personalized information
- whether the site had a clear and appropriate target audience; depression is especially prevalent in young people
- whether the site dealt with important issues particular to depression such as risk factors, screening tests and the issue surrounding social stigma, and;
- whether the user must pay or register to use the site, as this may deter users with mild to moderate depression.

Additional features which the authors thought important to include that were also evidenced in the literature in depression websites included:

- origin of the information (Government or academic sources, personal pages, pharmaceutical company, etc)
- whether recommendations agreed with evidence based treatments such as those put forward by the American Psychiatric Association, and whether treatment recommendations were evidence-based;
- quality of evidence; whether the information was from a descriptive study, controlled trial or a randomized controlled trial

4.1.1 Generalizability

Some of the features of the checklist such as levels of evidence, sources of information on the site (whether from Government, academia, pharmaceutical or personal testimonials, for example), can also be incorporated into other instruments for different disease areas. In addition to this, the authors incorporated some of their own ideas on what features were important. These included features such as whether the site was information-based or interactive (particularly useful for depression, and whether screening was a prominent feature, and who the intended audience was, whether cost or registration was a factor (also an important consideration for web surfers of low mood).

This study is therefore currently the most comprehensive evaluation of the most popular websites for depression which most people are likely to come across when searching this topic. The methodology can be used as a model for developing similar tools in other disease areas.

4.1.2 Measurement Techniques

The quality of Depression Information websites will be evaluated according to:

- the quality of evidence and other issues of importance, such as intended audience (age group, etc) and origin of the information, and whether the treatments recommended for depression and evidence-based or not, coupled with;

- the health information quality index incorporated as the second part of the checklist which assesses content, usability, reliability, transparency, interactivity and privacy/confidentiality [3].

Firstly, the quality of evidence section will evaluate whether the sources of content originate from Randomized Controlled Trials, non-Randomized Controlled Trials, Cohort or case-Controlled studies, or descriptive data. Secondly, the elements of the health quality index include:

4.1.3 Content – This is done in a 10-point scale and refers to whether the content of the website is evidence based. It also asks questions pertaining to the credentials of the content providers, that there is a balanced presentation of the material and whether it is clear as to who is responsible for the site. Examples include questions such as "Are the (medical) credentials/qualifications of the content providers and developers visible?" and "Is there a statement about how information is evaluated (e.g., is there an approval process), or someone named is responsible for overview of all content?" Scores were calculated by summing the total number of positive responses, dividing them within the category to obtain an average for that category (eg. content), and multiplying by the weighted constant for that category.

4.1.4 Usability – Refers to clarity of language, navigation, and whether the user has an opportunity to post and ask questions, as well as obtain online help when needed. Examples include "Is the language used understandable (i.e. medical term simplified to layman's terms), and if not use their glossary?" And "Is the intended audience described or is the purpose of the websites stated?"

4.1.5 Fast, reliable and readily available – Is the site useable and does it load without any trouble? Examples of questions are "Was the URL accessible?" and "Is each page usable (ie. no broken links, images load, no pop-ups)?"

4.1.6 Transparency of advertising, authorship and sponsorship – are all relevant contact, financial and support interests declared? For example, “Is there information about who is on the editorial board and the contact details or other content details (e.g. e-mail, address, phone number) for the site owners/webmasters/designer displayed?” For example, “Do the site owners declare any financial interest in the content (i.e. Do they declare any financial interest they derive from the content or running of the site)?”

4.1.7 Interactivity – Does the site encourage contact with a health professional and offer links to such resources? Is there a multi-mode of delivery such as chat rooms, quizzes and online screening tests, etc. For example, “Are patients encouraged to contact a health professional if they are concerned about their health issue?” and “Can patients contact someone online on the site (e.g. doctor or nurse)?”

4.1.8 Confidentiality of personal information collected – what is the privacy policy? Are the legal and security issues taken care of and how is this achieved? “Are their respective privacy laws that apply to the jurisdiction stated?”

The authors therefore propose this combined checklist specifically for use in Depression Information Websites as it is more relevant to the specific needs of these consumers and coupled with the Bomba and Land Index [3] makes for a comprehensive yet manageably useable tool for the evaluation of quality.

5. What this study adds

This study has defined a set of criteria for evaluating the quality of depression information websites. It serves as a basis for further similar studies in evaluating the quality of health information websites available in disease areas with differing health characteristics, and therefore also differing information resource needs. For example, a similar study would be useful in the high prevalence areas of cancer and heart disease.

6. Conclusion

The results show that a quality checklist that covers all the major dimensions of quality, is easy to use and is suitable for depression was not available prior to this paper. Most criteria listings found were too cumbersome to use, overlapped in some aspects, but lacked others, and importantly, were not tailored to depression. This study is an important development given the growing prevalence of depression, the increasing number of Internet users and that a lot of people use the Internet specifically for searching on Health Information. Further research needs to be conducted to refine and validate the checklist used in this evaluation. Future research should also explore the feasibility of an automated tool that can be conveniently accessed online and used for the quality evaluation of consumer health information.

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