Quality Assessment of English and Spanish Oral Cancer Websites

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Abstract

Based on the morbidity and mortality due to oral cancer, it is essential that oral cancer information available on the Internet be usable, organized and credible. We evaluated the information quality of 24 English-language and 25 Spanish-language oral cancer websites. English-language sites scored 74.7 out of 100 points on the Information Quality Tool scale, while Spanish-language sites scored 48.8. Developers of oral cancer websites should improve the design, organization and credibility of the information presented.

Introduction

In the United States alone, roughly 8,000 people die each year from oral cancer and more than 30,000 new cases are diagnosed annually1. A recent study showed that, 80% of American adult Internet users have searched the Web for general health information and 15% of those specifically searched for dental health information2. Having high quality oral cancer information available via the Internet is important given the significance of this health problem. The goal of this study was to evaluate the design, organization and credibility of multiple English and Spanish oral cancer websites.

Methods

We employed a search strategy using the keywords “oral cancer”, “mouth cancer” and “tongue cancer” to find oral cancer sites via Medline Plus, Google and Yahoo in English. The equivalent translations “cancer oral”, “cancer de la boca”, and “cancer de la lengua” were used to search Medline Plus en Español, Google Español and Yahoo Telemundo to locate oral cancer sites in Spanish. An initial screening included/excluded websites based on content relevance, presentation and a general overview. Each set of websites was then evaluated by two raters, who were native speakers, using a modification of the Information Quality Tool (IQT)3. The modified IQT evaluates websites based on four criteria: 1. disclosure information 2. sites' perceived agendas 3. link functionality and 4. design.

Results

Our search strategy produced 24 English-language sites and 25 Spanish-language sites for evaluation. The English-language websites had an average IQT score of 74.7 (out of 100) with inter-rater reliability scores of 0.85 (Cronbach's alpha) and 0.73 (inter class coefficient, 95% CI). The Spanish-language sites had an average IQT score of 48.8 (0.96, Cronbach's alpha and 0.92 inter class coefficient, 95% CI). The range of English site scores was from 24.5 – 100 and Spanish site scores from 13.5 – 96.5. Further, 75% of the English sites had a score of 60 or higher whereas only 37.5% of the Spanish sites had a score of 60 or higher. When the IQT scores are broken down to their four parts, the English sites had average scores of 35.4 (out of 41) for disclosure, 12.3 (out of 21) for agenda, 3.8 (out of 7) for links, and 24.9 (out of 31) for design. The Spanish sites had average scores of 20.6 (out of 41) for disclosure, 7.2 (out of 21) for agenda, 6.2 (out of 7) for links, and 16.1 (out of 31) for design.

Conclusion

The English-language oral cancer websites had much better design, organization and perceived credibility than Spanish-language ones. Average scores of the Spanish-language sites were one third lower than those of the English-language sites. Developers of oral cancer sites should improve the design, organization and credibility of their sites. We are currently working to analyze the information content of the sites to complement our findings about information quality.

References