

Content Analysis of Breast Cancer Webpages

Research category:

Rose Clark-Hitt, Michigan State University
Marleah Dean, University of New Mexico
Sandi W. Smith, Michigan State University
Samantha Nazione, Michigan State University
Charles Atkin, Michigan State University
Pamela Whitten, Michigan State University

This research was supported by the Breast Cancer and the Environment Research Centers grant number U01 ES012800 from the National Institute of Environmental Health Sciences (NIEHS), and the National Cancer Institute (NCI), NIH, DHHS

Abstract

Background The Internet is a popular source for Americans who are searching for health information, and its potential for relaying breast cancer information makes it important to understand the types and amount of content on breast cancer websites. Prior research has examined the content of breast cancer messages via various media sources, but there has been little work examining the content of breast cancer web pages. Research has found little content on prevention and environmental risks.

Research Questions The objective of this study is to analyze the content of popular breast cancer websites. Specifically, the research questions ask what content is present, and to what degree (coding for major emphasis of content, minor emphasis of content, or no content present). Seven breast cancer topic areas included are: environmental risk factors, prevention, detection, treatment, awareness, social support, and survivorship.

Method The most popular search engines (Yahoo, MSN, and Google) were used to search for the terms “breast cancer” and “breast cancer and environment.” The first 10 websites that appeared across these searches were analyzed. For these websites, each page that was linked by one click of the main webpage was coded (N=420). The individual web page was the unit of analysis. An ordinal coding scheme was employed to assess the level of coverage of the seven areas in each web page, and coding reliability was established.

Results

- **Environmental risks:** 13% major emphasis, 36% minor emphasis, and about 50% no content.
 - Most common environmental risk topics were chemicals in the environment (5% major emphasis, 7% minor emphasis, and 88% with no content) and hormones (2% major emphasis, 10% had a minor emphasis, and 88% with no content).
- **Awareness:** 16% major emphasis, 36% minor emphasis, and 47% no awareness content.
- **Prevention** 16% major emphasis, 45% minor emphasis, and 39% no content.
- **Detection:** 9% major emphasis, 43% minor emphasis, and 48% no content.
- **Treatment:** 22% major emphasis, 41% minor emphasis, and 38% no content.
- **Social support:** 2% major focus, 30% minor emphasis, 67% no content.
- **Survivorship:** 4% major focus, 34% minor emphasis, 62% no content.

Conclusion This study demonstrates that about half of the most searched websites provide at least some degree of information regarding environmental risks and risk reduction behaviors. Awareness, prevention, detection, and treatment were each present in approximately 50-60% of websites, while social support and survivorship topics were less frequently appearing topics.