A Brief Evaluation of Ankylosing Spondylitis Websites Using the DISCERN Instrument

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Abstract

The purpose of this project was to assess the quality of consumer health information on the Internet for individuals seeking to learn about ankylosing spondylitis. Websites were evaluated using the 16-question DISCERN instrument--an easy-to-use assessment tool developed to evaluate the quality of publically available online health information. Additionally, websites which were found to contain quality and reliable information, were checked to see if they contained the HON label, indicating that the site had been certified by the Health on the Net Foundation.

In order to replicate common consumer health searching behavior, the search was conducted using Google as the search engine and limiting the search to obvious keywords. Additionally, since most consumers limit their resources to those found on the first page or two of the search results, only the first 20 eligible websites in the result list were evaluated. Websites excluded in the evaluation were sites which Google labelled as advertisements or were proprietarily-sponsored. Notations were made on the search experience as a poor search experience can be a barrier to finding quality information.

This project was intended to serve as an initial exploration of the quality of consumer health information on the Internet and as an examination of barriers consumers would obtain if they were an average person seeking health information on the Internet about ankylosing spondylitis. Additional research in this area would be beneficial.

Introduction and Methods

The DISCERN instrument is a 16-question, validated assessment tool used to evaluate the quality of health information on the Web.[1,3] In this project, the DISCERN instrument is used to evaluate 20 consumer health websites whose purpose is to present information about ankylosing spondylitis—an inflammatory arthritic disease involving the spine and other body organs. There is no record in the literature of previous evaluations of web-based ankylosing spondylitis consumer health information using DISCERN. Only the first 20 sites were evaluated in this project because research shows that people do not generally use websites past the first page of results.[2] Due to duplication of sites and sites specifically labelled "Ad," a larger sample was included in the evaluation to obtain a broader range of sites other than those on the first page of results. Duplications, and sites obviously labelled as advertisements by Google were excluded. Google was the search engine used in the project as it the most commonly used search engine.[4]

In addition, each website was searched for the HON logo (Health On the Net) indicating that the site had been certified by meeting specific criteria regarding authoritativeness, documentation, disclosure, advertising, and justification of claims.[5] HON certification of each website was cross-checked with the DISCERN score to see if there was any relationship between certification and DISCERN scores.

Results

Websites Reviewed and Their DISCERN Scores and HON Certification Status

Title	Website URL	DISCERN Score	HON Certified
Spondylitis Association of America	https://www.spondylitis.org/Ankylosing-Spondylitis	74	No
WebMD	http://www.webmd.com/back-pain/guide/ankylosing-spondylitis	63	Yes
Mayo Clinic	http://www.mayoclinic.org/diseases-conditions/ankylosing-spondylitis/home/ovc-20261048	72	Yes
Wikipedia	https://en.wikipedia.org/wiki/Ankylosing_spondylitis	69	No
MedicineNet	http://www.medicinenet.com/ankylosing_spondylitis/article.htm	70	Yes
Arthritis Foundation	http://www.arthritis.org/about-arthritis/ankylosing-spondylitis	53	No
MedlinePlus	https://medlineplus.gov/ankylosingspondylitis.html	77	Yes
National Institute of Arthritis and Musculoskeletal and Skin Disease	https://www.niams.nih.gov/health-topics/ankylosing-spondylitis	61	No
Arthritis-health	https://arthritis-health.com/types/ankylosing-spondylitis/ankylosing-spondylitis-overview	69	Yes
Medical News Today	http://www.medicalnewstoday.com/articles/248217.php	67	Yes
American College of Rheumatology	https://www.rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/spondyloarthritis	66	No
Medscape	https://emedicine.medscape.com/article/332945-overview	74	No
Patient	https://patient.info/health/ankylosing-spondylitis-leaflet	64	No
Healthline	https://www.healthline.com/health/ankylosing-spondylitis	70	Yes
Spine Universe	https://www.spineuniverse.com/conditions/ankylosing-spondylitis	57	No
Spine-health	https://www.spine-health.com/conditions/arthritis/ankylosing-spondylitis/ankylosing-spondylitis	70	Yes
Arthritis Foundation	http://www.arthritis.org/about-arthritis/ankylosing-spondylitis	53	No
Everyday Health	https://www.everydayhealth.com/ankylosing-spondylitis	72	Yes
Merck Manual	http://www.merckmanuals.com/hom/bone,-joing,-and-muscle-disorders/joint-disorders/ankylosing-spondylitis#v34445809	52	No
Humira	https://www.humira.com/ankylosing-spondylitis	26	No

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Discussion and Limitations

Overall, the DISCERN scores in this study indicate that the most easy-to-find information about ankylosing spondylitis on the Internet is classified between excellent (63-80) and good (51-62) in quality. The maximum achievable score for a website using the DISCERN instrument is 80 and the minimum score is 16. This evaluation produced scores ranging between 77 and 26, with a mean score of 63.95 and SD of 11.3. HON certification occurred in 45% of the website sites evaluated. The mean DISCERN score for HON certified sites in this project was 70, so HON certification does improve the DISCERN score, but not in a statistically significant way.

Difficulty can arise through the searching experience. The impression from notes taken during the search indicate that advertisements often clutter the website, and it is sometimes difficult to determine whether the information provided about treatment is coming from a pharmaceutical company, or a surgeon, or an unbiased purveyor of information. Also, some sites are tricky to navigate with confusing layouts and seemingly endless links to other sites or webpages. One particularly well-known site, contained a link containing malware that had to be eliminated by the IT Department as it shut down the computer! Readability is another issue. Although the evaluation did not include a check for the grade level of the written material on the sites, the information on the websites was probably written at a higher grade level than is comfortable for average users.

Limitations of the research in the project include the use of only one evaluator. Although three separate evaluations were done over a period of three months, data would be better if a larger number of evaluators were trained to use the DISCERN instrument and then this group evaluated the websites. Statistics on interrater reliability could then be calculated and included in the results.

References

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