

Is “Health on The Net” Certification a Reliable Indicator of Quality? A Meta-Analysis of Romanian English Language Medical Websites

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Abstract

Background: Health on the Net (HON) promotes access to reliable medical information. The study aimed to investigate the prevalence of HON certification and whether it is associated with the quality of informational content. *Methods:* The study included the results of 21 researches conducted between 2018-2021 about the quality of online medical information (1040 Romanian and English language webpages). HON certification was assessed using the HONcode toolbar application. Completeness and accuracy scores were extracted from previous research. The frequency of certification and compliance with individual HON principles was calculated. Associations between HON certification and information quality scores (completeness and accuracy) were tested using the student t-test. The threshold for statistical significance was set at 0.05. *Results:* Health on the Net certification was present on 1.1% and 21.6% of the Romanian and English websites, respectively. Compliance with the HON principles varied between 9.7% and 82.7% of Romanian-language websites and between 35.6% and 88.5% of English-language ones. The principle with the highest compliance was transparency regarding the texts' authors in both languages. The minimum compliance was with the principle of displaying the date of the last update in the case of Romanian-language websites and of attributing sources in the case of English-language websites. Association tests between HON certification and information quality showed the following results: HON certification vs. completeness $p=0.201$ for the Romanian subsample and $p<0.0001$ for the English-language subsample; HON certification vs. accuracy $p=0.018$ for the Romanian subsample and $p=0.886$ for the English-language subsample. *Conclusions:* Health on the Net certification of Romanian-language sites was almost absent, while English-language websites had relatively higher, but still low certification rates. HON certification was associated with content accuracy for Romanian-language websites and with the completeness of information for English-language sites. If subsequent research confirms the results of this meta-analysis, users should reconsider their reliance on HON certification.

Keywords: Infodemiology; Consumer health informatics; Health literacy; Access to information; Meta-analysis

