Correcting health misinformation online: Collaborative crosschecking

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EXTENDED ABSTRACT

Purpose of this paper

Patients, especially those with chronic conditions, increasingly use the Internet to find and exchange health information with other patients. Healthcare providers are often concerned that patients will find misinformation online, particularly in patient peer support groups; providers may even deter patients from using the Internet as an information source in order to prevent them from encountering misinformation (Chung, 2013). In online support groups, however, health misinformation is often corrected relatively quickly by other patients (Esquivel et al., 2006). The purpose of this paper is to introduce the concept of *collaborative crosschecking*, which describes how patients teach one another information literacy skills in the process of correcting health misinformation in online support groups.

Research methods

There are two sources of data in this constructivist grounded theory study: semi-structured interviews with 12 participants with chronic kidney disease (CKD) who use online support groups (OSGs) for CKD, and forum posts made to those groups by 11 of the participants. Participants were interviewed twice over the course of several months. The interviews resulted in 40 total hours of audio, which were transcribed by the researcher. At the time of transcription, pseudonyms were assigned. Eleven participants also made comments in OSGs; a random selection of these comments and their surrounding threads were harvested for a total of 1,847 threads in the dataset. The interview and forum data were analyzed qualitatively using constructivist grounded theory methods, including inductive analysis, the constant comparative

method, memoing, and theoretical sampling (Charmaz, 2014). Data collection and analysis was performed for the findings presented in this article until theoretical saturation was reached.

Findings

When discussing health misinformation online, participants often rely on terms like "herbs" or "herbal supplements," contrasting naturopathic information with evidence-based medicine. Robert replies directly to a user on the forums who asks about herbal supplements to increase function; he says: "I suggest you read the following. No negativity, just a dose of reality. Good luck." This is followed by a list of six links to reputable organizations that provide information about kidney disease to the general public. Robert gently refutes the medical efficacy of herbal supplements by providing links to reputable sources online, rather than confronting the person who asked the question. He also provides an example of how to crosscheck for the original poster and for other users, teaching them how to assess credibility on their own.

When discussing how to correct misinformation posted in forums, participants say that teaching other people how to get reliable information is their ultimate goal. In service of this goal, they often don't directly confront misinformation. Gretchen says: "Some of the things on there do horrify me a bit – things that are obviously wrong. Usually somebody else can come in and disagree with them better than I can. I'm not qualified to give medical advice." Instead, Gretchen and others opt to give information about how to assess the credibility of information. As threads containing misinformation unfold, users build on references posted in previous replies, adding new information and verifying the information provided in the links posted by other users, demonstrating their own credibility assessment practices for other users as a way to impart information literacy skills to other readers.

Collaborative crosschecking, therefore, is a collaborative information literacy practice whereby users attempt to teach other users how to verify information by sharing their own crosschecking techniques. Participants do not simply correct misinformation when they encounter it in OSGs: they walk through their own evaluation process in an attempt to teach others to evaluate the trustworthiness of information. Participants are careful when they engage in collaborative crosschecking: they use gentle language, remind users that "everyone is different" and that not all information about CKD applies to everyone, and provide multiple references to back up their claims. One of the most common pieces of advice that participants give is to verify any information they find online with a healthcare provider.

Research implications

Collaborative crosschecking serves multiple functions: it refutes the misinformation from the original post, offers evidence supporting the correct information, and fosters an understanding of how to evaluate information by offering clear instructions. This collaborative information literacy practice likely extends beyond the health domain. For example, it is similar but not identical to the "call and avalanche" pattern of receiving answers to questions in online forums for multiplayer online games (Martin & Steinkuehler, 2010). Additional research is necessary to determine whether collaborative crosschecking occurs in other domains. Although collaborative crosschecking was a common response to misinformation in the 1,847 threads examined in this study, this may not always be the case and could be an artifact of the sampling method and may be a limitation of this dataset. Future research should investigate how widespread and common this practice is; it should also explore the effectiveness of collaborative crosschecking in disseminating information literacy skills and in correcting misinformation.

Social implications

This work extends our understanding of how patients refute health misinformation posted online. Collaborative crosschecking is a routine activity that participants engage in when they encounter misinformation. Health information behavior researchers, therefore, could develop informational interventions that teach patients credibility assessment skills, rather than leaving this task to other patients. There is also an opportunity for healthcare providers to impart these skills. In this study, participants who felt dismissed by providers were less likely to talk with them about online health information, highlighting the necessity of a welcome attitude towards the practice. Providers should not discourage patients from using the Internet for health information; instead, they should educate patients about assessing its credibility.

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