

Study identifies factors that determine trustworthiness of online information about vaccines

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Associate Professor Ayelet Baram-Tsabari. Credit: Technion - Israel Institute of Technology

According to a study published in the March 10, 2020 issue of *Vaccine*, people who were prompted to evaluate the trustworthiness of vaccine information from online question-and-answer platforms assigned

different weights to several criteria depending on whether they were vaccine-confident or vaccine-hesitant. The study's authors are Associate Professor Ayelet Baram-Tsabari and Dr. Aviv J. Sharon of the Technion Faculty of Education in Science and Technology, together with Dr. Elad Yom-Tov, a visiting scientist at the Technion Faculty of Industrial Engineering and Management.

The World Health Organization states that vaccine hesitancy—the reluctance or refusal to vaccinate despite the availability of vaccines—is one of the top ten threats to global health. Experts are concerned that online vaccine misinformation may be contributing to vaccine hesitancy. Despite this risk, little research attention has been paid to understanding how individuals seek vaccine information online and evaluate its trustworthiness.

The researchers' findings show that web surfers tend to consider information that encourages vaccination as more trustworthy than information that discourages vaccination, but this is less true for people who are hesitant about vaccines. On average, vaccine-hesitant people's trustworthiness ratings are more affected by the length of the text provided, suggesting a preference for detailed explanations. Furthermore, across the board, answers provided by [health professionals](#) were viewed as more trustworthy than those supplied by parents, which, in turn, were more likely to be perceived as trustworthy than answers that did not mention the writer's expertise or parenthood status.

These findings are based on 694 participants from the U.S. who rated 600 answers to vaccine-related questions retrieved from "Yahoo! Answers" (e.g., "As a nurse I can tell you without a doubt there is NO WAY you can get HPV from the shot," written by a self-described health professional). They then rated the trustworthiness of the person who wrote the [answer](#), as they perceived it, and completed a questionnaire concerning their own vaccine hesitancy. The researchers

conducted a statistical analysis of the results to find which characteristics of the answers and the raters best predicted the trustworthiness ratings.

"Vaccine hesitancy is a catchall category for several different styles of decision-making about vaccines. Our study shows some ways in which vaccine hesitancy can be manifested in online behavior," said the lead author, Dr. Aviv J. Sharon. The study's findings indicate that, despite the proliferation of anti-[vaccine](#) messages online, there is still a great deal of public trust in the knowledge provided by mainstream science and medicine. The findings of the study also suggest that expert outreach in online environments may be an effective intervention to address [vaccine hesitancy](#).

More information: Aviv J. Sharon et al. Vaccine information seeking on social Q&A services, *Vaccine* (2020). [DOI: 10.1016/j.vaccine.2020.02.010](#)

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