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## The Scourge of Disinformation

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## The Scourge of Disinformation

**Disciplines**

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## EDITORIAL

### The scourge of disinformation



Scientific discovery and insight can sometimes progress slowly and then require additional time before being applied to clinical practice. Therefore, patients and health professionals may be compelled to seek out information from other sources, which may increase the likelihood of perpetuating misinformation or, worse, developing a belief in disinformation.<sup>1</sup>

*Disinformation* is defined as “false information deliberately and often covertly spread (as by the planting of rumors) in order to influence public opinion or obscure the truth.”<sup>2</sup> However, disinformation is not only false information. It is sometimes interweaved with truthful information, but in ways that are intentionally deceitful and intended to foment uncertainty and seed confusion. The end result is that not only is the public being harmed by these malicious acts but science and medicine are also being undermined, thereby eroding trust in evidence-based practice.

A search for the term “disinformation” in the National Library of Medicine PubMed database<sup>3</sup> yielded 234 manuscripts published between 2019 and the time of this writing. The dramatic rise of disinformation within the public sphere has paralleled the worldwide spread of COVID-19 and the accompanying vaccination efforts. The need to combat disinformation was the actual theme in the majority of the aforementioned manuscripts. In contrast, only 113 publications were identified from 1981 to 2018.<sup>2</sup> However, in the more dated manuscripts, the term “disinformation” was not always used as defined herein. Nonetheless, the historic literature includes several examples of colleagues attempting to raise awareness about disinformation related to human immunodeficiency virus and acquired immunodeficiency syndrome, tobacco and the health effects of secondhand smoke, and human papillomavirus vaccination, as just a few examples. Thus, disinformation is not a recent phenomenon, and potential motivations for creating and propagating disinformation, including financial gain, political propaganda, or possibly even just as entertainment, are clearly wide-ranging.

In 2020, the World Health Organization co-opted the term “infodemic” as a means of characterizing the abundant stream of information about COVID-19, including fact-based and false information that was being disseminated on an almost daily basis via all types of public communication platforms.<sup>4</sup> However, there was enough concern about the potential harm of malicious disinformation campaigns to human health

and security that 132 United Nations Member States, non-Member Observer States, and Observers were signatories to the United Nations “Cross-Regional Statement on ‘Infodemic’ in the Context of COVID-19.”<sup>5</sup>

The World Health Organization outlined a series of important tips that one can use to become better informed<sup>4</sup>:

1. “Assess the source” of the information.
2. “Go beyond the headlines” because there is often a tendency for sensationalism.
3. “Identify the author” online to determine their credentials and potential credibility.
4. “Check the date” to determine whether the information being disseminated is based on current understanding.
5. “Examine the supporting evidence” to determine whether the information is supported by other credible data or sources.
6. “Check your biases” by being self-reflective about potential biases that could influence judgment and interpretation about what is being conveyed.
7. “Turn to fact-checkers” to help affirm that the information being disseminated is accurate and based on current understanding and best practices.

None of these proposed tips is infallible, and expecting a layperson to reflect upon their personal biases is likely one of the most difficult hurdles to overcome. Nonetheless, typical readers of this journal are not likely to be categorized as laypeople, and patients may come to us seeking our informed insight and asking us to potentially serve as their fact-checkers.

With sensationalist or provocative headlines, heated political rhetoric, conspiratorial fearmongers, and an omnipresent social media, it is becoming increasingly challenging to escape the tentacles of harmful disinformation. Nonetheless, whether it is questions about the benefits of vaccination, information about COVID-19 mitigation efforts, human papillomavirus infection and cancer risk, prophylactic third molar extraction, the need for greater diversity in clinical trials, holistic and homeopathic therapies, or health and treatment outcome disparities, health professionals need to be better informed about issues that may affect the patients we encounter and for the professional constituencies seeking our expertise oftentimes in the setting of continuing education programs. Despite the tsunami of

disinformation and misinformation already in the public sphere, scientists, clinicians, and our professional organizations must continue to take the lead in advocating for evidence-based, principled practice, dispelling rumors and innuendo and correcting false and/or incorrect information irrespective of the source. The lives of some patients may literally be hanging in the balance.

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