

RISK MANAGEMENT ARTICLE

Addressing Misinformation in the Dental Office

The wealth of health information available online can be beneficial for patients, but only if that information is accurate. Although recent issues on misinformation have been related to the COVID-19 pandemic, misinformation has been a problem in many other areas related to wellness and healthcare, such as dieting, community water fluoridation, and vitamins and supplements. Although misinformation isn't new, the internet and social media have supercharged the ability for it to spread.

Dentists and other members of the dental care team have the power to counteract misinformation, but first, they need to understand the nature of the problem and why people may be inclined to believe information that is not grounded in science.

Misinformation overview

Two definitions help better understand this issue. *Misinformation* refers to claims that conflict with the best available scientific evidence. *Disinformation* refers to a coordinated or deliberate effort to spread misinformation for personal benefit, such as to gain money, power, or influence. An example of misinformation is the false claim that sugar causes hyperactivity in children. An example of disinformation is a company that makes false scientific claims about the efficacy of their product to boost sales. This article focuses on misinformation.

People increasingly seek health information online through sources such as search engines, health-related websites, YouTube videos, and apps. Unfortunately, misinformation can occur at all these points, as well as via blogs, social media platforms, and user comments on articles or posts. Even when not actively seeking health information, people can be exposed to it through media outlets such as print, TV, and streaming networks.

Why do people believe misinformation?

Several factors can lead to people accepting misinformation:

Health literacy. Health literacy refers not only to the ability to read and understand health information, but the appraisal and application of knowledge. People with lower levels of health literacy may be less able to critically assess the quality of online information, leading to flawed decision-making. One particular problem is that content is frequently written at a level that is too high for most consumers to fully understand.

Distrust in institutions. Past experiences with the healthcare system can influence a person's willingness to trust the information provided. This includes not only experiences as an individual but also experiences of those in groups people affiliate with. Many people of color and those with disabilities, for example, have had experiences with healthcare providers where they did not feel heard or received substandard care, eroding trust. In some cases, healthcare providers have lied, as was the case with the Tuskegee syphilis study of Black men; the men were not told they had the disease or offered treatment. In addition, some people have an inherent distrust of government, leading them to turn to alternative sources of information that state government-provided facts are not correct.

Emotions. Emotions can play a role in both the spread and acceptance of misinformation. For example, false information tends to spread faster than true information, possibly because of the emotions it elicits. During a crisis when emotions are high, people tend to feel more secure and in control when they have information—even if that information is incorrect.

Cognitive bias. This refers to the tendency to seek out evidence that supports a person's own point of view while ignoring evidence that does not. If the misinformation supports their view, they might accept it even when it's incorrect.

How to combat misinformation

Recommending resources, teaching consumers how to evaluate resources, and communicating effectively can help reduce the negative effects of misinformation.

Recommendations. In many cases, patients and families feel they have a trusting relationship with their healthcare providers. Dentists can leverage that trust by recommending credible sources of health information. Before making a recommendation, dentists should consider the appropriateness of the source. For example, a source may be credible, but the vocabulary used may be at too high a level for the patient to understand. And someone who prefers visual learning will not appreciate a website that is dense with text. Researchers Kington and colleagues suggest using these foundational principles when evaluating sources:

- *Science-based:* The source provides information consistent with the best scientific evidence available and meets standards for creation, review, and presentation of scientific content.
- *Objective:* The source takes steps to reduce the influence of financial and other forms of conflict of interest or bias that could compromise or be perceived to compromise the quality of the information provided.
- *Transparent and accountable:* The source discloses limitations of the provided information, conflicts of interest, content errors, or procedural missteps.
- Each principle has specific attributes, which are listed in the article available for download at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8486420/>.

Another tool for evaluating sources of health information is the CRAAP test (**C**urrency, **R**elevance, **A**uthority, **A**ccuracy, and **P**urpose), which focuses on evaluating the accuracy of research. It consists of multiple questions in each category (see <https://researchguides.ben.edu/source-evaluation>). For a more concise tool, dentists can turn to the algorithm, developed by Kington and colleagues, for assessing the credibility of online health information.

Although the tendency is to recommend government sources such as the Centers for Disease Control and Prevention and National Institutes of Health, as noted earlier, some people do not trust the government. In this case, patient/consumer sources such as MedlinePlus, Authority Dental, the American Dental Association's *Mouth Healthy*, or the Academy of General Dentistry's *KnowYourTeeth.com*, and condition-specific nonprofit organizations (e.g., the American Heart Association, American Cancer Society) might be preferred.

Education. The sheer scope of the information found online can make it difficult for even the most astute consumer to determine what is accurate. Dentists can help patients by providing tools they can use to evaluate what they read. The website Stronger suggests a four-step process for checking for misinformation (<https://stronger.org/resources/how-to-spot-misinformation>).

- *Check the source.* Is the website or person known for conflating facts and opinions?
- *Check the date.* Is it implied that the information is recent even though it's not? Is there more current information available elsewhere?
- *Check the data and motive.* What is the original source of the information? Are they just looking for anything that supports their own worldview?

- *If still unsure, use a reputable, fact-checking site such as Snopes.com or FactCheck.org.*

UCSF Health (<https://www.ucsfhealth.org/education/evaluating-health-information>) provides a useful short overview for patients on how to evaluate the credibility (e.g., authors' credentials) and accuracy (e.g., whether other sources support the information) of health information and red flags to watch for (e.g., outdated information, no evidence cites, poor grammar).

Communication. Communication is the best way to correct misinformation and stop its spread. This starts with the dentist clearly explaining the evidence for recommended interventions. From the start, the dentist should establish the principle of shared decision-making, which encourages open discussion.

A toolkit from the U.S. Surgeon General on misinformation (<https://www.hhs.gov/sites/default/files/health-misinformation-toolkit-english.pdf>) recommends that dentists and other healthcare providers take time to understand each person's knowledge, beliefs, and values and to listen with empathy. It's best to take a proactive approach and create an environment that encourages patients and families to share their thoughts and concerns (see "*A proactive approach*"). Dentists should remain calm, unemotional, and nonjudgmental during these conversations.

Dentists also can prepare for conversations where they know misinformation may come up such as conversations regarding fluoride, teeth whitening, or sealants. For example, the CDC has a page on its website that addresses oral health topics (<https://www.cdc.gov/OralHealth/index.html>). It includes resources such as responses to possible questions.

Listening and providing information may not be enough. In some cases, a patient may not want to hear what the dentist is saying. When patients become angry or frustrated, the dentist should remain calm. It can be helpful to acknowledge the frustration ("I can see that you are upset.") Depending on the situation, it may be possible to briefly summarize key points before reinforcing the desire to provide information to support the patient and then move on to another topic. The goal is to maintain a positive dentist-patient relationship, which leaves the door open to further conversation.

Documentation

As with any patient education, it's important to document discussions related to misinformation in the patient's health record. Dentists should objectively record what occurred and include any education material they provided. Should the patient experience harm as a result of following misinformation instead of the recommended treatment plan, this documentation would demonstrate the dentist's efforts and could help avoid legal action.

A positive connection

Dentists can serve as a counterbalance to the misinformation that is widely available online. Providing useful resources, educating consumers, and engaging in open dialogue will promote the ability of patients to receive accurate information so they can make informed decisions about their care.

A proactive approach to addressing misinformation

Researchers Villarruel and James provide the following suggestions for talking with patients about misinformation:

- Acknowledge the barrage of health information that is available online and through other sources and the difficulty of “knowing who and what to trust.” (“I know there’s a great deal of information available and not all of it is the same. Sometimes, it’s hard to sort it out and know what to trust.”)
- Assess where patients and families obtain their health information and what sources they trust. Keep in mind that even when a source is credible, a person may not trust it, and a person may trust a site that is not credible. (“Where do you get most of your oral health information? What makes that a trusted source for you?”)
- Provide alternative and accurate sources of information. (“I’m not familiar with that website, but I’ll look at it and let you know what I think. In the meantime, here’s where I get information and why I trust it.”)
- When correcting misinformation be nonjudgmental. (“I’ve heard similar information about that topic. Here’s what I’ve learned from the science and why I believe this treatment is safe and effective.”)

REFERENCES

- CDC. How to address COVID-19 vaccine misinformation. 2021. <https://www.cdc.gov/vaccines/covid-19/health-departments/addressing-vaccine-misinformation.html>
- CDC. Oral Health. 2022. <https://www.cdc.gov/OralHealth/index.html>
- CDC. The U.S. public health service syphilis study at Tuskegee. 2021. <https://www.cdc.gov/tuskegee/index.html>
- Chou W-YS, Gaysynsky A, Vanderpool RC. The COVID-19 misinfodemic: Moving beyond fact-checking. *Health Educ Behav.* 2020;1090198120980675:1-5.
- Kington RS, Arnesen S, Chou W-YS, Curry SJ, Lazer D, and Villarruel AM. Identifying credible sources of health information in social media: Principles and attributes. *NAM Perspect.* 2021;10.31478/202107a. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8486420/>
- Kurpiel S. Evaluating Sources: The CRAAP Test. Benedictine University. 2022. <https://researchguides.ben.edu/source-evaluation>
- Office of the Surgeon General. A Community Toolkit for Addressing Health Misinformation. US Department of Health and Human Services. 2021. <https://www.hhs.gov/sites/default/files/health-misinformation-toolkit-english.pdf>
- Stronger. How to spot misinformation. n.d. <https://stronger.org/resources/how-to-spot-misinformation>
- Schulz PJ, Nakamoto K. The perils of misinformation: When health literacy goes awry. *Nat Rev Nephrol.* 2022. <https://www.nature.com/articles/s41581-021-00534-z>
- Swire-Thompson B, Lazer D. Public health and online misinformation: Challenges and recommendations. *Annu Rev Public Health.* 2020;41:433-451.
- UCSF Health. Evaluating health information. n.d. <https://www.ucsfhealth.org/education/evaluating-health-information>
- Villarruel AM, James R. Preventing the spread of misinformation. *Am Nurs J.* 2022;17(2):22-26. <https://www.myamericannurse.com/preventing-the-spread-of-misinformation/>

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