

# Study finds news media has amplified rather than rectified misleading health information from TV personality Dr. Oz

December 20 2021

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Consumers' choices about health products are influenced heavily by public information. A new study analyzed how media outlets responded

to the endorsement of weight-loss products by TV personality Dr. Oz. The study found that media tended to amplify rather than rectify misleading information, resulting in the further spread of misinformation. The authors call for government oversight to lessen the risk of spreading inaccuracies.

The study, by researchers at Carnegie Mellon University (CMU), Hong Kong University of Science and Technology (HKUST), and New York University (NYU), appears in the *Journal of Marketing Research*.

"Access to health care [information](#) is a cornerstone of the Internet era," suggests Kannan Srinivasan, Professor of Management, Marketing, and Information Systems at CMU's Tepper School of Business, who co-authored the study. "But the rapid proliferation of medical information in the public domain, including from less credible sources, can pose a serious risk of harming consumers with erroneous or exaggerated claims."

Mehmet Oz, a celebrity physician, has promoted supplements on his [show](#) that promise to burn fat, leading to a surge in sales of these products. The impact of his show, "The Dr. Oz Show," has been termed the Oz effect. Medical professionals and associations, as well as the U.S. Senate, have expressed concern because his promotions are not based on scientific studies.

Because Oz publicly makes strong claims about the effectiveness of certain ingredients, and because these claims either lack rigorous scientific backing or are based on small studies published in marginal outlets, the authors of this study labeled the health information conveyed about the effectiveness of certain ingredients (e.g., green coffee bean extract for [weight loss](#)) "hype news." They defined this as information that is taken out of context, exaggerated, and overgeneralized to attract public attention. While [social media platforms](#) try to identify and

eliminate [fake news](#), hype news—which is based on a grain of truth—is more difficult to eliminate. Nor is hype news limited to Dr. Oz's show: Other celebrities have endorsed products that lack evidence of their effectiveness.

Researchers sought to determine whether hype news about over-the-counter (OTC) weight-loss products promoted by The Dr. Oz Show amplified or mitigated information. They also examined market responses to the show. OTC weight-loss products have a broad appeal in the United States, where more than 70 percent of adults age 20 and over are overweight or obese.

Researchers examined data from weight-loss products available on Amazon from 1996 to 2014, including [product reviews](#) and product-level metadata (e.g., prices, ad spending), extracting each product's key ingredient. Next, they checked whether the ingredients were recommended on The Dr. Oz Show in 2012, finding 10 matches. Of the more than 6,000 weight-loss products in the data set, the study found that more than 1,800 contained one of the 10 key ingredients mentioned by Oz.

Then, the researchers collected publicly available information about the 10 ingredients mentioned on the show, looking at articles from credible news media, peer-reviewed research articles, articles on health-related websites, consumers' product reviews, and online product discussions, as well as manufacturers' spending on advertisements. They found:

- Mention of a product on The Dr. Oz Show boosted the amount of news coverage about the ingredients in the product. Rather than critically examining Oz's endorsements, credible media not only transmitted the information but also amplified it.
- Hype news from The Dr. Oz Show boosted the volume of consumer searches about the recommended ingredients 30

percent.

- Only one of thousands of peer-reviewed scholarly articles directly corrected Oz's claims on the show.
- Website articles written by health experts were scarce and also failed to correct the misinformation originating from The Dr. Oz Show.
- Customer reviews left by consumers on e-commerce platforms were largely positive, again amplifying the misleading information.
- The intensity and language of online product discussions shared on forums and social media did not change after the Dr. Oz Show.
- The prices of products containing ingredients endorsed by Oz rose significantly after they were mentioned on the show.

"The bottom line is that all the [media outlets](#) we studied created an information cascade that inflated the hype," explains Xiao Liu, Associate Professor of Marketing at NYU's Stern School of Business, who co-authored the study; Liu is a former doctoral student at CMU's Tepper School of Business. "The hype then piqued consumers' interest in the ingredient, which enabled merchants to offer more products that contained the endorsed ingredient and to charge more for those products."

"Our study calls for more effective government regulation of OTC products and also of endorsements to address the problem of spreading hype news," says Zijun Shi, Assistant Professor of Marketing at HKUST, a coauthor who is also a former doctoral student at CMU's Tepper School of Business. "Relying on self-policing is unlikely to resolve the issue."

Among the study's limitations, the authors say they did not measure sales of each product and thus were unable to quantify the direct Oz effect on

sales. In addition, the study did not examine the interdependence of different information sources and examined only written media, not information disseminated via video and audio.

**More information:** Zijun (June) Shi et al, Hype News Diffusion and Risk of Misinformation: The Oz Effect in Health Care, *Journal of Marketing Research* (2021). [DOI: 10.1177/00222437211044472](https://doi.org/10.1177/00222437211044472)

Provided by Carnegie Mellon University

Citation: Study finds news media has amplified rather than rectified misleading health information from TV personality Dr. Oz (2021, December 20) retrieved 26 June 2024 from <https://phys.org/news/2021-12-news-media-amplified-rectified-health.html>

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