# Researchers examine public sentiment on social media platform regarding COVID-19 vaccine

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A data analysis of public sentiment about the COVID-19 vaccine from December 2020-May 2021 on one popular social media platform by a team of researchers at the University of Tennessee Health Science Center found more positive than negative sentiment regarding the

vaccine.

The [study](#) led by Arash Shaban-Nejad, Ph.D., an associate professor in the UTHSC-Oak Ridge National Lab (ORNL) Center for Biomedical Informatics, and the Department of Pediatrics, was published recently in the *Journal of Infection and Public Health*. The study is titled "Public sentiment analysis and topic modeling regarding COVID-19 vaccine on the Reddit social media platform: A call for strengthening vaccine confidence."

"Using [sentiment analysis](#) and topic modeling, our study examined approximately 11,000 social media posts about COVID-19 vaccinations on the popular online platform, Reddit," Dr. Shaban-Nejad explained. "Sentiment analysis is a quick and inexpensive technique utilized to gauge the public's opinion and determine the deeper context about a certain event or idea. Topic modeling is an equally useful tool to identify a cluster of words or latent topics being discussed in a body of texts. Accordingly, these employed algorithms can provide a near realistic assessment of the public's mood and focus of discussion in just a few minutes."

"Our results show that sentiment remained overall more positive than negative throughout the duration of the timeframe in focus," Dr. Shaban-Nejad said. Though, he said, public discussions showed more concern about vaccine side-effects, than about conspiracy theories.

"Understanding [public opinion](#) and sentiment is key for public health policymakers to implement effective and efficient vaccination policies and targeted transparent culturally-sensitive vaccine promotion programs, which take into account individual differences," Dr. Shaban-Nejad said. "The results of this finding can be used to implement and optimize intelligent digital technologies to identify misinformation on social media and assist users to access reliable sources of vaccine

information."

**More information:** Chad A. Melton et al, Public sentiment analysis and topic modeling regarding COVID-19 vaccines on the Reddit social media platform: A call to action for strengthening vaccine confidence, *Journal of Infection and Public Health* (2021). DOI: 10.1016/j.jiph.2021.08.010

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