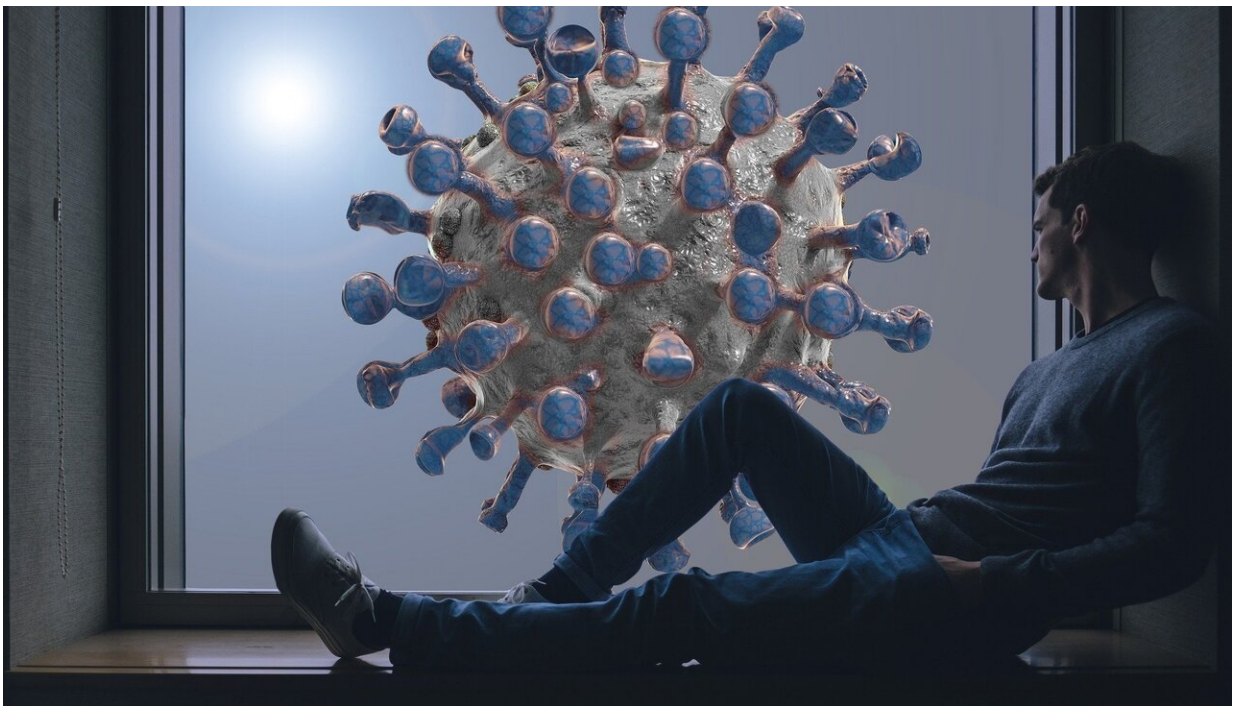# Study shows narrative conversion messages boost attitudes about COVID vaccinations among unvaccinated adults

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Public health communicators have tried numerous methods to encourage people to accept COVID-19 vaccinations and boosters. And while some messages were ineffective, new University of Kansas research discovered a specific type of narrative message—a conversion

message—can directly improve attitudes and indirectly reduce resistance among people who have never been inoculated for COVID-19.

The experimental study also found that people were persuaded differently depending on their pre-treatment levels of general vaccine hesitancy beliefs.

Researchers tested two-sided conversion messages—in which a person told a story about how they were initially resistant to getting vaccinated for COVID-19 but eventually refuted these beliefs and changed their mind after infection—against one-sided advocacy messages, in which people said they always intended to get vaccinated after contracting COVID-19. The results confirmed that conversion messages improved attitudes.

Jeff Conlin, assistant professor of journalism & [mass communications](link), led the study, in which participants were randomly assigned one of three conversion messages or one of three advocacy messages. After reading the message, participants answered questions assessing how they perceived the strength of the argument and the extent to which the author of the message was similar to themselves.

"Overall, compared to advocacy messages, conversion messages were more effective in increasing positive attitudes toward COVID-19 vaccines. Since the entire sample was unvaccinated, we were also interested in how conversion messages could reduce their resistance," Conlin said. "Our findings revealed the route to decreasing resistance was circuitous but also significant."

The researchers employed an analytical method called structural equation modeling to reduce measurement error and understand the broader relationships, or paths, between message manipulations and cognitive variables. The analysis showed significant indirect effects of

conversion messages on resistance to vaccination through intervening [cognitive processes](link).

Results in the final accepted structural equation model showed that resistance was significantly reduced following conversion message exposure through a path that initially included homophily or participants' perceived similarity of the author to themselves. It was then tested through argument strength, or participants' assessment of how convincing the message seemed, and finally, through elevated attitudes about COVID-19 vaccination.

"We wanted to understand better the relationships between intervening variables, or what was happening after message exposure but before people formed their attitudes and resistance intentions because these constructs represent different mechanisms of cognitive processing—fast and slow thinking," Conlin said.

The authors' explanation for the results was that there was likely a high degree of matching between the conversion message author's perceived [psychological state](link) and the beliefs held by the unvaccinated sample. As participants moved from homophily, or from a less effortful mode of fast-processing to argument strength, an effortful slow-scrutinizing process, they may have recognized that their judgment about vaccination was called into question.

More effortful processing was needed to compensate for a reduction in their confidence in self-judgments, which resulted in a need to evaluate the arguments in the message more closely.

"What's interesting is that participants were not just relying on a mental shortcut of recognizing the similarity between the author and themselves before forming attitudes and intentions—they were also scrutinizing the argument," Conlin said. "Ultimately, participants found the outcome of

the message was acceptable. Along with increasing [positive attitudes](#), these results showed that participants' intentions to resist COVID-19 vaccines were indirectly reduced."

The researchers also found different indirect routes to reduce vaccination resistance depending on participants' self-reported levels of general vaccine hesitancy. Participants who exhibited higher levels of hesitancy (prior to receiving the message treatment) showed reduced resistance through homophily, followed by argument strength.

Meanwhile, participants who exhibited lower levels of vaccine hesitancy used only argument strength, not homophily, when processing the message. For this group, however, indirect message effects on intentions to resist were not significant.

According to the authors, the findings lend empirical support to established dual processing theories such as the Heuristic Systematic Model that describe additive and biased serial processing, which also can be applied to practice.

Practically speaking, if public health communicators know that both types of processing occur serially, as opposed to simultaneously, and that homophily plays a default role, they can look for matches between a storyteller with a compelling conversion story and the target audience, Conlin said.

"What the author of the conversion message reveals about their former beliefs should overlap with current beliefs held by the target audience. Not only that, but the reasons the author shares about their [conversion](#) experience need to be convincing and well-told," he said.

The research is [published](#) in the journal *Health Communication*.

The work builds on research Conlin and colleagues previously conducted that showed two-sided conversion messages were more effective in persuading vaccine-hesitant participants than one-sided advocacy messages prior to the mass availability of vaccines.

More information: Jeff Conlin et al, Re-Routing Persuasion: How Conversion Messages Boost Attitudes and Reduce Resistance Among Holdouts Unvaccinated for COVID-19, *Health Communication* (2023). DOI: 10.1080/10410236.2023.2289280

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