

**Mis- and Disinformation About Covid-19
Challenges for Health Communication**DOI: 10.47368/ejhc.2022.200
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CC BY 4.0**Sabrina H. Kessler** 

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Misinformation and disinformation pose major challenges to effective health communication around the globe during the Covid-19 pandemic. In this special issue, we present research on mis- and disinformation about Covid-19 in the European context and describe challenges and potential solutions for health communication. More specifically, the special issue features articles that analyse (a) the prevalence of mis- and disinformation beliefs about Covid-19 and their impact on individuals, as well as the drivers of these beliefs and (b) the effectiveness of potential prebunking and debunking interventions to combat mis- and disinformation. The articles demonstrate the relevance of political attitudes and media use as significant predictors of belief in health misinformation and tested a variety of effective interventions—from pausing to think critically to detailed debunking. Together, the collection of articles serves to support the evidence-based efforts of international organisations, governments, social media technology companies, and major academic institutions to address the problem of health mis- and disinformation.

Keywords

Misinformation, disinformation, Covid-19 pandemic, prebunking, debunking.

End of 2022, the pandemic now has lasted almost three years and has resulted in more than 600 million reported cases of infection and 6.5 million deaths (as of September 07, 2022, Covid-19 Data Repository). Millions of lives worldwide have been negatively impacted directly or indirectly by the Covid-19 pandemic (World Health Organization [WHO], 2021). Fortunately, scientific knowledge on detecting, preventing, and treating infections has also increased considerably within a brief period (Weiner et al., 2020). For example, research teams throughout the world have developed effective Covid-19 vaccines, and as of July 2022, approximately 12.2 billion vaccination doses have been administered worldwide (Covid-19 Data Repository, 2022).

The success of these efforts in reducing the Covid-19 burden relies on the public's awareness and acceptance of scientific knowledge and health measures, besides government enforcement. This is where health communication plays a crucial role. It has been an important and necessary factor in the transfer of scientific knowledge, the management of uncertainty and fears, and the promotion of behaviour change during the Covid-19 pandemic (Finset et al., 2020; Melki et al., 2022). For example, experimental research revealed that the communication of doctors' consensus on trust in vaccination increased participants' Covid-19 vaccine uptake compared to a control group (Bartoš et al., 2022).

An unprecedented and diverse flow of information and viewpoints about Covid-19 occurred in the form of around-the-clock media reporting, as well as through online and offline discussions in semi-public or private settings (Barrio & Gática-Pérez, 2022; Eisenegger, 2020; Finset et al., 2020). However, attempts by professional health communicators to inform and educate individuals about the disease and effective prevention measures compete with persuasive mis- and disinformation, especially online (Lewandowsky et al., 2021). Studies reveal that the spread of mis- and disinformation about Covid-19 can have various negative effects on people's attitudes towards health authorities and acceptance of health measures. For example, exposure to mis- and disinformation about Covid-19 has been shown to undermine trust in institutions and to decrease willingness to undertake effective preventive measures such as vaccination (Loomba et al., 2021; Pummerer et al., 2020). In response to this issue, international organisations, governments, social media technology companies, and major science bodies have intensified their efforts to counter health mis- and disinformation (Mheidly & Fares, 2020).

To support this effort, we publish this special issue in the *European Journal of Health Communication* to provide practitioners and researchers with a deeper understanding of the challenges of mis- and disinformation about Covid-19 for health communication. More specifically, we present papers analysing a) the dissemination of beliefs in mis- and disinformation about Covid-19, and their effects on individuals, as well as the drivers of belief in mis- and disinformation and b) the effectiveness of potential interventions to combat mis- and disinformation. Due to the large number of studies on misinformation and Covid-19 in the US-American and English-speaking context (Janmohamed et al., 2021; van Mulukom et al., 2022), we are particularly pleased to present studies from countries in the European area and thereby complement the global picture.

Spread of beliefs in mis- and disinformation and influencing factors

Leuker et al. (2022) investigated the perceived prevalence of misinformation and individual differences in beliefs in misinformation in cross-sectional online surveys of German residents at three time points. They detected an increase in the perceived prevalence of misinformation over time and an association of belief in misinformation with support of right-wing populist parties, specific media use (e.g., social media), and specific sociodemographic characteristics (e.g., migration background). They also discovered that only about half of the respondents reported using strategies to discern between true and false information, such as checking for consistency between different sources to identify misinformation.

Ziegele et al. (2022) investigated factors associated with people's susceptibility to believe in conspiracy theories about the origins and functions of the Covid-19 virus. They examined a sample of the German population using a cross-sectional telephone survey and also found evidence that support of right-wing populist parties and specific media use (e.g., messenger services) were associated with belief in Covid-19 conspiracy theories. Additionally, they detected that increased belief in Covid-19 conspiracy theories was related to reduced vaccination intentions.

Together, the studies by Leuker et al. (2022) and Ziegele et al. (2022) demonstrate the relevance of political attitudes and media use as significant correlates with the belief in health misinformation in a European context. Moreover, in light of the widespread use of online media to search for health information, these studies indicate the relevance of efforts to counter mis- and disinformation with targeted online communication.

Countering the spread of belief in mis- and disinformation about Covid-19

Leuker et al. (2022) revealed that only about half of respondents used strategies to discern between true and false information. Kruijt et al. (2022) revealed that the use of such strategies can indeed make a difference. Similar to research on accuracy nudges (Pennycook et al., 2020), Kruijt et al. (2022) explored whether a simple critical thinking recommendation added to a social media newsfeed could aid people in better discerning true news from false and reducing their trust in misinformation. Their online experiment among Dutch-speaking participants showed that those who were exposed to the critical thinking recommendations showed less trust in misinforming messages compared to a control condition. The effect was mediated by increased accuracy in news truth discernment.

Pummerer et al. (2022) examined ways to prevent the emergence of conspiracy thinking and its impact on prevention behaviours related to Covid-19 vaccination through adequate information. The authors explored how addressing uncertainty concerning the mRNA vaccination affected conspiracy beliefs and vaccination intentions among a German-speaking sample. In their preregistered study, they tested an intervention addressing the uncertainty concerning this new vaccination and demonstrated that individuals reading the relevant explanations were less likely to agree with a Covid-19 vaccination conspiracy theory and were more willing to get vaccinated compared to control conditions. The study underlines the importance of detail and transparency in health communication to mitigate the impact of subsequent exposure to mis- or disinformation.

According to Memenga et al. (2022), transparent Covid-19 information should also be accompanied by effective debunking communication to counter misinformation that is already

in circulation. Memenga et al. (2022) conducted three online experiments among German participants and examined the impact of vaccine type, misinformation debunking, and critical events during vaccine trials on confidence in Covid-19 vaccine safety, vaccination intention, and willingness to participate in a vaccine trial. Among other things, they showed that debunking increased vaccination intention and confidence in vaccine safety.

Together, the studies by Kruijt et al. (2022), Pummerer et al. (2022), and Memenga et al. (2022) tested a variety of effective interventions to counter health mis- and disinformation in European contexts – from pausing to think critically, providing detailed and transparent information before individuals encounter misinformation, to detailed debunking.

Health communication can best fulfil its key role during the Covid-19 pandemic if it is itself evidence-based. Accordingly, this special issue serves to support the evidence-based efforts of international organisations, governments, social media technology companies, and major academic institutions to address the problem of health misinformation. In the light of the findings, we recommend that health communicators invest in debunking, prebunking and accuracy nudges to counter health misinformation. These prevention and intervention strategies are not only proven to be effective but also highly needed since many individuals rarely use strategies to discern between true and false information. Future studies should also focus on low-income countries and other under-researched regions. Misinformation knows no borders and global efforts across regions are needed to effectively address the phenomenon.

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