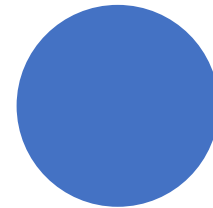


Combating misinformation during the COVID-19 pandemic: Health Literacy Considerations

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National Cancer Institute

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Health literacy meets misinformation

Defining health misinformation:

“A health-related claim of fact that is false based on current scientific consensus”

We also need to consider:

- Intent
- Impact
- Medium
- Context

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Viewpoint

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Addressing Health-Related Misinformation on Social Media

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CURRENT ISSUES

Misinformation as a Misunderstood Challenge to Public Health

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Special issue about Health Misinformation on Social Media

The American Journal of Public Health, in collaboration with the National Cancer Institute, intends to publish a special issue on health misinformation on social media.

The special issue will focus on four main content areas:

1. health misinformation surveillance
2. the context of health misinformation
3. the impact of health misinformation
4. responses/interventions to address health misinformation

What do we know about misinformation spread?

- Divisive disinformation campaigns erode consensus and trust in science/health experts
- Online echo chambers perpetuate division
- Falsehoods tend to spread easier and faster
- Credible information is often complex, nuanced, evolving, and uncertain
- Message source, message format, and health literacy matter
- Social media industry and government's policies and practices towards misinformation and content moderation are rapidly evolving

Topics of COVID-19 Misinformation:

Towards a working taxonomy

- Disease Characteristics
 - Denial of pandemic (“It’s all overblown”)
 - Downplay susceptibility and disease severity
 - Unsubstantiated symptoms
- Origins and spread of virus
 - Conspiracy theories: Bill Gates, Chinese lab, 5G
 - Cultural practices: bat soup
- Fed, State, & local government and organization responses
 - Opposing quarantine/stay-at-home policies
 - Misinformation about public health professionals
- Individuals’ prevention behaviors
 - Ignoring social distancing guidelines
 - Opposing mask wearing (or casting doubt on its effectiveness)
- Unproven treatments
 - Home remedies
 - Unproven drugs (e.g. Hydroxychloroquine)
 - Dangers advice or product (e.g. bleach)
- Vaccine attitudes
 - Skepticism towards vaccine/developers
 - Concerns over safety
 - Doubting efficacy

Let's take the COVID-19 vaccine as an example

We currently live in a **world without a vaccine...**

To encourage uptake of vaccine when one is available, traditional health literacy approaches include proactively promoting vaccine literacy (ability to critically evaluate information, numeracy skills, appreciation of the complexity of science):

- Patient-provider communication, including strong and consistent messaging
- Targeted media campaigns
- Peer-to-peer, school-based, and community-based vaccine education

Meanwhile, we need to understand strategies already being deployed by anti-vaccination groups → *Can't* be undone with correction or fact checking alone

- Propagating rhetoric related to personal freedom & against government mandates
- Discrediting agents involved in vaccine development (e.g., pharmaceutical companies, philanthropists, government scientists)
- Targeting already-mobilized groups and emotional topics (e.g., BLM and both sides of abortion debate)

Consider novel communication strategies

- Induce skepticism towards disinformation agents (similar to discrediting of tobacco marketing)
- Develop tools to help identify and access credible information sources and resources for debunking myths and misinformation
- Cultivate science literacy: uncertain and evolving nature of science
- Combat conspiracy theories by partnering with former members and trusted influencers
- Mobilize the public health majority to counter online misinformation
- Proactively monitor, flag, downrank, and remove content or accounts that promote misinformation; reconfigure platform features that amplify misinformation (e.g., Twitter's handling of *QAnon* and Facebook/Google's removal of misinformation video)
- These efforts can help address the **cognitive, emotional, social, and contextual** factors of misinformation spread

Health
care
Providers

Government/
Public health
entities

Health care
organizations

Journalism/
Media

Schools

Peers/
community

Effectiveness of narratives in communicating about COVID-19: An online experimental study

Background: Narrative-based persuasion has been shown to be an effective communication approach in a wide range of health behaviors; little has been done in the context of critical public health crises

Study Goal: A randomized experiment to investigate narrative-based messages to promote recommended behaviors in COVID-19 control

- Using Mturk platform to recruit US adults
- COVID-19-related attitudes, beliefs and behaviors assessed at baseline
- Participants randomized to receive 3 messages in either a personal experience narrative format or a non-narrative didactic information format
 1. Social distancing for COVID-19 prevention
 2. Anticipated COVID-19 vaccine
 3. Debunking unproven COVID-19 treatments
- Overall reaction to message and post-view attitude and behavior items
- Demographics, information sources, and perceptions of public health researchers assessed

Putting health literacy in context

Health literacy doesn't exist in a vacuum; it's not just about the lack of good information. We need to consider the role of **technology, identity, values, biases, and emotions**, and examples of effective communication efforts.

1. **Digital/technology literacy:** Fact checking skills, awareness of information dissemination algorithms and techniques (e.g. sharable memes) and motivations for and harms of spreading misinformation
2. In addition to typical drivers of vulnerability such as limited health literacy or LEP, consider other types of **vulnerable communities** (e.g., online information silos or those with conspiratorial mindset) and ways to reach them with credible information: Health literacy interventions that penetrate silos
3. **Fostering and restoring trust** as part of health literacy initiatives

Thank you!

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