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## Health Malinformation

Payman Adibi <sup>1</sup>, Firoozeh Zare- Farashbandi <sup>2</sup>, Mohammadreza Hashemian <sup>3</sup>

### Letter to the editor

Reliable information plays an important role in the health system. Nevertheless, sometimes the society is faced with distortion of facts, manipulation of information, sharing of information without understanding its consequences, and dissemination of fake news, which are types of information disorders. Wardle and Derakhshan classified information disorders into three categories: "Misinformation", "Disinformation" and "Malinformation" (1).

Unlike disinformation that is based on completely false information, health malinformation uses valid and acceptable medical information but subject to certain conditions or relatively accurate health information. This information is presented without considering the original context or in an incorrect context to lead people who encounter it to false or misleading impressions and conclusions. In fact, malinformation is reconfigured true information. When background or context, such as time, place, or privacy, is not considered, it can create a perception that conflicts with reality and harm individuals, organizations, and collective understanding (2).

The important point in the circulation of health malinformation is the intention of the sender of the information or message, which is done intentionally and with malicious intent in order to cause real harm or the threat of real harm to a person, organization or country. Therefore, in promoting malinformation, the person's intention to harm is certain, not accidental, which can be harmful and even dangerous for others, and at the same time, it has a criminal aspect (3).

Baines and Elliott cite an example of misinformation based on a Facebook post in which an image showed empty supermarket shelves next to shelves full of plant-based foods, and the slogan next to the image was: "Even with the terrible corona virus, no one wants Eat vegetarian food. At first glance, the slogan seemed right next to the said image while the message was misleading, as the image was of a grocery store in 2017 just before Hurricane Harvey, and not the covid-19 pandemic. According to Brennen et al., the image of the supermarket was altered in such a way that a truth from one context (Hurricane Havery) was used to deceive another context (Covid-19) (4). Another example is publishing the news that a certain drug is not effective to hit the pharmaceutical company concerned.

Although health malinformation is often significantly misleading, it is difficult to counter it because it is based on apparent and misleading facts and not lies (5). The phenomenon of malinformation can appear even in medical journals through various mechanisms such as deliberate attempts by authors to collect information out of context to present a misleading impression of the findings or distort the findings of research published by third parties. This can cause lack of trust in medical science if it is not recognized by the referees and editorial board of the journal. Therefore, it is necessary for all stakeholders to be aware of the methods of detecting health malinformation in all stages of the production of science in the field of health until its dissemination, circulation and use.

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1. Professor, Gastroenterology and Hepatology Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

2. Associate Professor, Health Information Technology Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

3. Assistant Professor, Department of Medical Librarianship and Information Sciences, School of Allied Medical Sciences, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

Address for correspondence: Assistant Professor, Department of Medical Librarianship and Information Sciences, School of Allied Medical Sciences, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. Email: mr.hashemian553@gmail.com