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## Letter to the Editor

## The tsunami of misinformation on COVID-19 challenged the health information literacy of the general public and the readability of educational material: a commentary



High mortality from COVID-19 and its more complexity and unknown features have resulted in some fear, anxiety and mental pressure among people worldwide.<sup>1</sup> In addition, its rapid development as a pandemic has seriously called for people to acquire and apply health information literacy and for specialists to prepare readable information material.

In the information age we live, each individual should manage the information he/she daily encounters in different media. The general public needs to be equipped with information literacy skills to manage the tsunami of so-called information they received in their daily lives via various types of resources. Besides, health information literacy skills are essential for people, especially when encountering health-related information on "global health crises", such as the outbreak of COVID-19.

The American Library Association defined information literacy as a set of abilities individuals require to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.<sup>2</sup> in line with the definition, the degree to which individuals have the capacity to obtain, process, understand, evaluate, and use basic health information needed to make appropriate health decisions can be conceived as "health information literacy".<sup>3</sup>

The growth of inactive information consumption can lead to our increased mental pressure and confusion. COVID-19 crisis caused the production and publication of vast amounts of valid and invalid information in different sources. This information ranges from information on the origin of the virus, its prevention, and control to its possible treatments. In the recent COVID-19 crisis, people tend to browse and study information of all types embedded in various social media. Much information on COVID-19 in these media is provided for profitable purposes and can be conceived as misinformation, pseudo-information, false information, and so on. Consequently, we faced with the information overload, leading to some negative consequences for our lives and manifesting our insufficient health information literacy. As the general public, we need health information literacy skills for better managing COVID-19 crisis and similar health-related crises we will be faced with.

Social media are potential for creating multi-intended unproven and informal data. The owners of social media tend to publish ads in the context of social media for compensating ownership costs and try to increase feedbacks by creating inaccurate information. This false information epidemic disseminates widely just as COVID-19 epidemic worldwide. As today's publishing industry and human beings of the information age search for speed rather than accuracy and correctness, the production and distribution chain of misinformation (infodemics) is occurred in the Net, Web, and social media, and this chain distributes our mental health and badly affects our health-related decision-makings, especially in health crisis, such as that of COVID-19.

Browsing and reflecting on so-called information sources and their content necessitates some critical thinking, informing on role-players' intends and some political-social issues behind. In our days of misinformation, we need to identify and refer to reliable information sources and specialists in different fields depending on our information needs. In the COVID-19 crisis, we need to equip media literacy, information literacy and health literacy. In addition, it requires that some "readable" information on COVID-19 is provided as educational material that can be easily read and understand by the general public.

On the one hand, health information literacy can be trained by medical librarians and other specialists in the field of library and information science. In this pandemic, it is essential that related agents began to enhance health information literacy of the general public as immediate action is required in this regard.<sup>4</sup> Teaching information literacy and health literacy as of main public health concerns,<sup>5</sup> and explaining appropriate behaviors in times of crisis are important for prevention of the pandemic.

On the other hand, the readability of health information websites is in low level,<sup>6</sup> including those of COVID-19<sup>7</sup> and their information may content pseudo-information or misleading information. This can result in increase in anxiety, and using such information may cause harmful effects on individuals' health. It is notable that effectively applying health information heavily dependents on individuals' ability to read, understand, and interpret this information. However, studies show that health information on the Web is often written in a confusing and unclear manner and in such a level that cannot be understood by many people.<sup>8</sup> In addition, the fear and anxiety made by a prevalent infectious disease such as COVID-19 may be a barrier to understanding information correctly.

As governments cannot control the media and their disseminated information on COVID-19, individuals should protect themselves against unreliable and misinformation on it by being equipped with health information literacy, and governments should design information embedded in educational material on the crisis in a readable and understandable level for the general public. As a result, focusing on training the general public to be health information literate and designing readable health-related educational information material are of duties need to be heavily considered in these days of increased uncertainty.

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