# Chapter 5 Counteracting Online Health Misinformation

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#### **ABSTRACT**

The use of internet and new media technologies provide new ways of communicating and online searching for health information. False health-related information as a result of the lack of reliable scientific sources is intentionally or unintentionally created and disseminated and can have negative effects on people's health. The purpose of this study is to identify strategies for counteracting online health misinformation from the perspective of health professionals using content analysis approach. From the analysis, strategies for dealing with the effects of misinformation include training of health staff at all levels, improving public awareness, and filtering or fact-checking. It is revealed that the most important way to cope with health misinformation in cyberspace is to enhance public awareness, which can reduce its detrimental impact to a great extent.

#### INTRODUCTION

Health information refers to any health-related knowledge (Mahmoudi and Taheri, 2015). It is a type of information that people need to use for themselves or other family members. Health information defined by U.S. National Library of Medicine includes information about general health, drugs and supplements, specific populations, genetics, environmental health and toxicology, clinical trials and biomedical literature (Zhao and Zhang, 2017). The process engaged in by humans to change their state of knowledge through a set of actions: information needs, seek information, evaluate

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and select information, and finally use the information is called information seeking (Sultana, 2016). Prior to the development the Internet and information technology, printed information sources, libraries, and information centers were used. About four decades ago, with the introduction of computers in data processing and retrieval, and over the past few years, a dramatic change has taken place (Chowdhury & Chowdhury, 2003). The Internet provides:

- Possibilities to communicate via electronic mail (e-mail), mailing listserv, news groups, chat boxes, Wide Area Information Server (WAIS) and the World Wide Web (WWW),
- Electronic resources, such as electronic books (e-books), electronic journals and electronic reports. Institutional repositories/ archives,
- Various programs such as search engines to help users search and find their required information, and social media as a significant online medium for the exchange of health-related information and advice.

Interest in the Internet as a means of communication for obtaining health information is growing rapidly (Tustin, 2010). The sheer volume of information and its availability through the Internet makes people looking for health issues online. Reports show that 44% of people have changed their decision about how to treat the disease after comparing it with online search results (Ghenai, 2017).

As most people use the Internet as a source of health information, the issue of source credibility and trust in websites is important. High quality information does not necessarily indicate trust. For example, a person may understand the desired quality of a message, but due to external factors, such as previous negative experiences do not trust the source and therefore do not act on it. Trust is defined as reliability, and a subjective judgment is whether or not an electronic resource on online health information is worth trusting (Diviani et al., 2015). Searching and sharing information about health and medicine has never been easier in human history, but much of the information available and shared on the Internet is inaccurate and even dangerous.

Thus, finding reliable information requires verifying the large amount of information published through social networks, which has become a complex computational task. Therefore, some studies have examined solutions to deal with misinformation published in virtual disclosure. Such research can be traced back to studies of Dordevic et al. (2016), Sommariva et al. (2018), Seymour et al. (2015), and Nambisan (2011). This research shows the high importance of this issue and the need for further research in this regard. Health professionals are one of the most important sources for developing solutions to deal with online health misinformation. Therefore, the purpose of this study was to identify justified solutions to counteract with online health misinformation from the perspective of health professionals.

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