

INFODEMIC AND THE IMPACT ON GLOBAL HEALTH

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Abstract: The present study aims to reflect on the impacts of the infodemic on global health. A theoretical-reflective study was conducted based on the concepts of health education and health promotion, that is, it proposes to think about the different dimensions that constitute it. To this end, Therrien's proposition about the pillars that constitute an investigation phenomenon was adopted: ontology, epistemology and methodology. The search was conducted in the second half of 2024 through the guiding question: What are the impacts of the infodemic on global health? The following descriptors were used: infodemic; global health and misinformation with the help of Boolean operatives to help and refine the search for studies for analysis. The infodemic represents the phenomenon of dissemination of information, not always true, in an exacerbated way, this phenomenon can impact people's adherence to sanitary measures, stimulate negative behavior in relation to individual and collective health, increase in the level of insecurity with the present and future, negative outcomes in relation to mental health and indiscriminate use of medications. Therefore, the performance of



professionals and public managers in coping with the infodemic is essential, given the great burden of morbidity and mortality that it can cause.

Keywords: Infodemic; Global Health; Misinformation.

INTRODUCTION

Infodemic is defined as an excess of information, some accurate and some not, that makes it difficult to find reliable sources and guidance when needed. The word infodemic refers to a large increase in the volume of information associated with a specific subject, which can multiply exponentially in a short time due to a specific event, such as the current pandemic. In this situation, rumors and misinformation arise, in addition to the manipulation of information with dubious intent. In the information age, this phenomenon is amplified by social networks and spreads more quickly, like a virus (PAHO, 2020; Zarocostas, 2020).

Greater global access to internet-connected cell phones, in addition to social media, has led to the exponential generation of information and an increase in the number of possible means of obtaining it, creating an information epidemic, or infodemic. In other words, there is a situation in which a lot of information is being produced and shared in all corners of the world, reaching billions of people. How much of this information is correct? Only a few (PAHO, 2020).

These contradictions have led a considerable part of the population to a cognitive dissonance, characterized by the exponential volume of content available on the world wide web about the pandemic. So much so that the World Health Organization (WHO) started to use the term infodemic, to designate the excess of information, accurate or not, that makes it difficult to find reliable sources and reliable guidance when needed (WHO, 2020). According to the WHO, in March 2020 alone, when the public health emergency resulting from the new coronavirus pandemic was officially declared, it was possible to compute the publication of 361 million videos, 19,200 articles, and 550 million tweets with



the terms coronavirus, covid-19, covid-19, or covid-19 (WHO, 2020).

In this infodemic context, the spread of false or fanciful news can occur as a confirmation bias (Van Bavel; Pereira, 2018), which leads individuals to seek information that ratifies their own beliefs. Nevertheless, taking into account the polarization of the discussion about COVID-19 in Brazil, the large-scale production of fake news about the pandemic is remarkable, in a deliberate, intentional, and criminal way, with the aim of deceiving, manipulating, deceiving, and denying reality, for political, economic, and ideological reasons. This problem was greatly aggravated when governments in several countries began to disseminate news without a reliable source, in addition to advising the use of medications without proven efficacy for the treatment of COVID-19 (Rômani, 2020). In this sense, the present study seeks to reflect on the impacts of the infodemic on global health.

MATERIALS AND METHODS

A theoretical-reflective study was conducted based on the concepts of health education and health promotion, that is, it proposes to think about the different dimensions that constitute it. To this end, Therrien's (2014) proposition was adopted about the pillars that constitute an investigation phenomenon: ontology, epistemology and methodology.

The study was carried out based on the identification of the theme, guiding question and the objective of the research; establishment of subject descriptors and databases, in addition to the criteria for inclusion and exclusion; definition of the information to be extracted and evaluation of the included studies; then, interpretation of the results and presentation of the review and synthesis of knowledge.

The search was conducted in the second half of 2024 through the guiding question: What are the impacts of the infodemic on global health? The following descriptors were used: infodemic; global health; disinformation to aid and refine the search for studies for analysis. The secondary databases for search were: Scientific Electronic Library Online (SCIELO), Catalog of Theses and Dissertations of the Commission for the Coordination for the Improvement of Higher Education Personnel (CA-



PES), as well as websites of agencies related to the object of study.

The inclusion criteria were: publications that addressed the analyzed theme, available online and with full text, in Portuguese, English or Spanish, without publication time cut. The exclusion criteria were: duplicate publications and works published only in annals of events.

After the analysis of the data from the selection and reading of the recovered publications, thematic content analysis was conducted, according to Minayo, which is carried out through three interdependent phases: pre-analysis, exploration of the material and interpretation of the results (Minayo, 2014).

DISCUSSION

The importance and impact of population awareness measures during epidemiological crises became even more evident in the covid-19 pandemic. The way the population sees the recommendations and the content conveyed through the health authorities can influence the management of a crisis, shortening or prolonging its duration or intensity, which, in practical terms, can mean great savings for the public health system and, above all, less humanitarian damage. According to the International Telecommunication Union (ITU), in 2005 there were about 1 billion people using the internet worldwide. This number rose to 4.6 billion in 2020 (International Telecommunication Union, 2020). In Brazil, the Brazilian Institute of Geography and Statistics (IBGE) revealed, through the National Household Sample Survey (PNAD), that in 2022 more than 93% of the population used the internet every day that year (IBGE, 2022).

The democratization of internet access brings with it advantages, but also inherent informational problems: people are more frequently exposed to false or inaccurate content about health. This exposure can have an increasing impact on the containment of epidemiological crises, following the global trend of increased use of internet service and changes in the usual sources of information consumption (Amorim et al., 2024).



The phenomenon of the infodemic was a result or consequence in large part of the covid-19 pandemic, in this sense, this phenomenon confused people, hindered adherence to sanitary measures, and stimulated negative behaviors of the population in relation to the pandemic (Freire et al., 2023). In other words, the dissemination of false information can have a very negative impact on health, especially in times of public health crisis.

A study carried out in 2021 on the infodemic related to COVID-19 in Brazil indicated that, if there were no misinformation, 400 thousand of the 508 thousand deaths recorded by the country could have been avoided. The prevailing misinformation on social networks and messaging apps about the use of masks, social distancing, medicines, and vaccines was one of the factors that contributed to this scenario (FAPESP, 2021).

Above all, it can be concluded that the epidemic of disinformation, misinformation, fake news, conspiracy theories motivated by political, economic, and social interests of radical and sectarian factions has left an indelible mark on the formation of public opinion on the measures to combat COVID-19 in Brazil. Therefore, fake news has contributed to the human and health tragedy that has affected the country. With an air of contemporaneity, it has gone from a regime of truth, based on institutions, to a condition deregulated by political actors, dogmas, intimacies, and personal experiences (BRASIL, 2020).

The population's beliefs directly affect preventive and care behaviors. Widely disseminated in Brazil, fake news related to COVID-19 affected these beliefs, especially because of the dissemination and promotion of miraculous or unproven forms of prevention, treatments without scientific basis, discouragement of social isolation, and discrediting of vaccines. This horde of misinformation contaminated the population's decision-making process in relation to sanitary measures (Amorim et al., 2024).

In this context, indiscriminate access to health information, often untrue, hinders the promotion of health and the treatment of patients, and can have serious consequences for life, health and well-being. In addition, it is important to consider the frequent habit of patients searching for health



information on the internet as a public health issue, evoking the importance of primary health care promoting and opening space, inside and outside offices, for access to truthful and legitimate health data (Santos et al., 2024).

Crises generate high levels of insecurity about the future, causing anxiety, which leads to seeking information about the causes and consequences to understand the confusing situation and try to reduce uncertainty and distress. However, with people being bombarded with news on the subject, the trend is just the opposite: stress can increase with the constant feeling of unease, while it becomes more difficult to get a clear picture of the moment (SUMMIT, 2024).

This leads to an endless spiral of search for more information, causing an increase in the level of anxiety, which can cause a decrease in immunity. In addition, the sheer volume of data makes it more difficult to distinguish between fake and true news (SUMMIT, 2024).

A review study identified studies that reflect the infodemic as a disseminator of information on the health of the community, disseminator of harmful information in the political sphere, which have been affecting the psychological of the community and the mental and physical health of health professionals. With COVID-19 and consequently the pandemic, the greater time at home led people to use more online communication networks, television, radios and others, emerging issues of distribution and exacerbated demand for information (Nogueira, 2020).

Finally, fear and excess of information have brought emphasis to an old practice: the indiscriminate use of medications, also known as self-medication. Which is carried out by the general population without a medical consultation or proper prescription, or even without pharmaceutical guidance, which resulted in an increase in the consumption of anti-inflammatory and anti-flu drugs, to prevent, treat or reduce the spread of the disease, according to Apolinário (Apolinário et al., 2021).

CONCLUSION

The phenomenon of the infodemic was a result or consequence in large part of the covid-19



pandemic, in this sense, the impact was more felt in the pandemic period, however, not restricted to it, these impacts are significantly negative and materialize in people's low adherence to sanitary measures, adoption of negative behaviors in relation to individual and collective health, increased level of insecurity with the present and future, negative mental health outcomes, and indiscriminate use of medications. The systematic action of professionals and managers in facing the infodemic is essential for safe decision-making and health protection.

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