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Mental health and online information during the COVID-19 pandemic *Mental health, information and COVID-19*

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As the number of confirmed cases of deaths from COVID-19 grows fast, the health team and the general public are facing psychological suffering, including anxiety, depression, stress, anguish [1-3], boredom, loneliness, anger [4] and suicide [5-6]. These problems worsen when added to the consequences of the misinformation overload, which has spread uncertainty, fear, anxiety and racism on the internet on a scale never seen in previous epidemics, such as severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS) and Zika [7].

In each new epidemic, not only a new virus circulates, but also a huge flow of fear, anxiety and uncertainty. The COVID-19 epidemic highlights and expresses forms of contemporary fear. A person's imagination makes him recognize a concrete threat posed by the virus that is capable of infecting him, and also an abstract threat, which he cannot see but which has the potential to cause harm [8].

Many people are exposed to the current pandemic against their will and are obliged to continue their daily lives, even though they know that the other people they encounter on transportation, at work, in public or collective spaces and in their own families may spread a disease that has no specific treatments yet. This type of fear is worse because the person is faced with a threat that

he believes he cannot control. In the COVID-19 scenario, fear seems to circulate and spread easier and faster than the new coronavirus, and there may be a greater number of frightened people than physically ill people [8].

In the absence of specific medical treatment and vaccination for COVID-19, coronavirus transmission can be controlled through behavioral changes. To do this, it is necessary to systematically monitor and understand how different individuals perceive risk and what leads them to act according to that risk [9]. With high levels of fear driven by information about the disease and its consequences, individuals may not think clearly and rationally when reacting to COVID-19 [10], therefore becoming more vulnerable.

In general, in this pandemic moment, the emotional reactions associated with stress are manifested in multiple ways, among which there may be an increase in fear, stress and anxiety when dealing with the disease; concern for one's own health and the health of people in one's family or social environment; changes in eating and physical activity patterns that often lead to reduced sleep or insomnia; changes in the cognitive aspect with attention and memory deficit, for example; worsening of chronic health problems and their comorbidities; and adoption of health risk behaviors, with greater use of alcohol,

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cigarettes and other drugs [11]. Fear, demotivation and often panic reactions affect the mental health of health professionals who are at the forefront of the fight against COVID-19, making them more vulnerable to physical illness, indisposition and decreased immunity.

Facing behavioral changes that affect mental health worldwide, researchers are looking for strategies to understand and deal with new challenges. An example was the development and validation of a research instrument called the Fear of COVID-19 Scale (FCV-19S), which will complement the clinical performance in preventing the spread of the virus and treating COVID-19 cases. This scale was validated in Iran, has robust psychometric properties and was suggested by the authors as a reliable and valid research tool for assessing fear of COVID-19, both in the general population and among individuals [10].

Another strategy focusing on mental health care in the face of the pandemic was the creation of the “Conexão Fiocruz Brasília” project by the Oswaldo Cruz Foundation (Fiocruz) in March 2020. This involves producing videos about the new coronavirus, with free transmission on the institution's various networks. The digital material is free to reproduce, download and share, thereby spreading correct information with high-quality content in Brazil [12].

Misinformation and fear of being hit by the new coronavirus have also affected emergency situations that require immediate intervention from the audience, for example, a cardiac arrest that takes place in a public place. A 60-year-old Chinese man suffered cardiac arrest outside a hospital next to a restaurant in Sydney. People did not help him for fear that the man was infected with the new coronavirus. Cardiopulmonary resuscitation maneuvers were only initiated in the hospital environment, and the man did not survive [13].

Gao and Zheng [14] showed a high prevalence of mental health problems positively associated with frequent exposure to social media during the pandemic. The Chinese government provided mental health services through a variety of channels, including a hotline, online consultation, an online course and outpatient consultation. In view of this, the authors suggest that governments, health systems and the media combat mental health problems related to COVID-19, using social media platforms to monitor and filter false information, in addition to promoting accurate information and reliable sources, such as the WHO and the Centers for Disease Control and Prevention (CDC, United States), among

de saúde, no entanto tem se observado uma elevada taxa de subnotificações. Em uma situação hipotética se tivéssemos 10 pessoas assintomáticas na manifestação, elas seriam capazes de transmitir em média a mais 3 pessoas [10], na cadeia de transmissão teríamos 30 pessoas infectadas (Figura 2). Na sequência essas pessoas seriam vetores do COVID-19 ao longo da cadeia de transmissão espalhando a mais pessoas. other organizations [14].

Another important aspect to highlight in this theme is understanding how the social dynamics related to COVID-19 shared on social media have played a fundamental role in the spread of information and misinformation. This form of communication has the potential to influence people's behavior and change the effectiveness of measures implemented by governments in situations like the current one. In this sense, the understanding of the social dynamics behind the consumption of informative content and social media is a relevant issue, since it can help to design more efficient epidemic models, responsible for social behavior and put into practice more efficient communication strategies in this moment of health crisis [15].

There is an urgent need to combat the fear, rumors and panic that affect the mental health of the general population and of health professionals in the times of COVID-19. To avoid fear among the population, it is important that governments and health organizations like the WHO develop strategies to teach people to check the quality of what they read, especially in the case of health information. In addition, the health team must take an active role in combating disinformation.

In view of this scenario, several sources of information have been established at the international [16-21] and national [22-27] levels. Brazil offers a series of digital informational content over the internet, including websites, social networks, applications, telehealth and WhatsApp, and other sources and information services prepared to clarify various aspects related to COVID-19.

Provision of mental health support is likely to help people maintain their psychological wellbeing and deal with acute and post-acute events more favorably. Some examples of mental health services available online include texting, chatting, telephone, video conferencing, self-help platforms, forums and psychoeducation [28]. Such strategies can mitigate misinformation, which has led to mental health impairment, in addition to expanding the field of research in the area of health communication in facing the pandemic.

In summary, the COVID-19 has and is likely to affect people worldwide. Feeling under pressure with anxiety, depression, stress, anguish, boredom, loneliness and anger is a likely experience for many people in this situation. In addition, the excess of online information about COVID-19 on the internet can be a threat to mental health. Thus, ensure that good quality communication and accurate information updates, because, managing our mental health and psychosocial well-being during this time is very important. Therefore, all of us around the world, need working together as one community can help to create solidarity in addressing COVID-19 together.

Collaborators

Marileila Marques Toledo and Edson da Silva contributed to the conception, elaboration, writing and approval of the article. Authors are responsible for all aspects of the work, ensuring the accuracy and completeness of any part of the article.

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