



# Post-Truth Reality: Worldwide Infodemia and Mental Health Concerns during and Post COVID-19 Pandemic Scenarios

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## Abstract

**Introduction:** The health emergency due to COVID-19 added to the pre-existing mental health panorama, especially with respect to perceived stress, anxiety and depression, to the risk cognition that the infodemia entails, together with the economic and psychosocial ones, triggered a mental health pandemic in the medium and long term. mental health.

**Aim:** Describe associations between infodemia, mental and psychosocial health as well as associated conditions in the population during the contingency due to the SARS-CoV2 pandemic.

**Methods:** A cross-sectional, empirical, descriptive study was carried out through a documentary review.

**Results:** Massive information promotes beliefs, values and ideals endorsed as real that misinform, generating chaos in virtual communities disregarding scientific evidence, consequently, detonating greater physical and mental vulnerability that reinforced a pandemic mental health crisis due to SARS-COV2.

**Keywords:** Infodemic; Stress; Anxiety; Depression; Pandemic; Mind, Health

## Introduction

Since the middle of the 20<sup>th</sup> century, and the remainder of the 21<sup>st</sup> century, humans have developed modern technologies, infrastructure and cutting-edge devices, which allow global connectivity between people through the Internet [1-7]. Likewise, traditional media have served as mechanisms for the dissemination of information throughout the different regions of the planet in recent centuries [8-12]. Currently, there are different channels through which information can travel simultaneously to almost every corner of the planet, providing accessibility, linking and dissemination of social, cultural, health, economic, political

information, among many others [13].

It is important to highlight that, for a long time, the traditional press has played a fundamental role in the dissemination of knowledge of all kinds, but mainly information linked to topics of social relevance or news about local, regional, national and transnational events, such as this happens with information about natural disasters, meteorological phenomena, war situations, religion, entertainment, relevant achievements for humanity and medical information and advances in health issues [14]. However, in recent years, the press and the dissemination of news through the Internet have been relevant, since thanks to



new smart devices, digital information has become the main source of distribution and consumption of data and all kind news, substantially outpacing traditional print media [15-20]. From Google, WhatsApp, Facebook, Tweeter, Instagram, Snapchat and Tiktok, among many others, they are the most used media par excellence [21,22].

Currently, the number of people who have a smart device is more than 3,000 million users, which will increase in the coming years, taking into account the increase in the trend registered from 2014 to 2020, in the main economies of the world. world [23]. Similarly, the number of users of social platforms is estimated at 3.6 billion users [22]. In this sense, the gender distribution in the continents of the planet is estimated as follows: Europe 84.9% men and 80.3% women; America 77.6% men and 76.8% women; Africa 33.8% men, 22.6% women; Asia 54.6% men and 41.3% women; Arab states 58.5% men and 44.2% women, to mention some data [23].

In Mexico there are 80.6 million internet users and 86.5 million smartphone users, which, based on the frequency of consumption recorded from 2015 to 2019, has been increasing, so this trend will most likely continue to rise for years to come. The age range of Internet users and/or Internet users ranges mainly from 12 to 44 years; In relation to the gender proportion, we have that 51.6% are women and 48.4% are men, and among the main uses given to the network and devices, the following stand out: entertainment 91.5%, access to news and information 90.7% , communication 90.6% and social networks 90.3%, as well as other categories of leisure, education, services, commerce, work, among others [24,25].

In this way, we can understand that the interconnectivity of people through the global Internet network is immense and easily accessible to the populations of many countries and regions of the planet, which allows the dispersion of information almost immediately, That is, millions of publications, such as news, tweets, messages, images and other digital products, are shared in real time, making control, filtering and/or censorship complicated. The capacity management of the platforms and companies is surpassed and for this reason 100% of the material that is shared on the networks is disseminated, and it is not until, through complaints, or censorship by key words or algorithms, the Information is filtered and takes time to be removed from these networks [26].

Given that people's daily dynamics are influenced by the news disseminated by the media [27], the impact generated by the news in the digital press and in traditional print media is undeniable, which generate different reactions since In turn, they impact the people who consume them differently,

in such a way that they mainly reach those populations that are less academically prepared [28].

Derived from this influence of the news and information disseminated in the media of all types, the credibility or trust of people towards the news media, governments and the institutions in charge of informing the population decreased during and after the COVID 19 pandemia, generating that People have lost confidence in the veracity of press content [29-35]. It has been documented that such people's distrust of the media encourages the obsessive search for information from alternative sources [36]. A consequence of this is that we are currently entering a period called "post-truth" or "post-truth" from the Anglo-Saxon term, where, derived from the little credibility in the media and official sources of information, people tend to value the news. and false information, in relation to real information, which causes false news to emerge en masse. Likewise, this type of news is disseminated excessively, since people are usually sharing this type of false information and even more prevalent than that disseminated by media considered institutional or governmental [37-39].

The Oxford Dictionary [40] defines the term "post-truth" as "relating to circumstances in which people respond more to feelings and beliefs than facts. In this era of post-truth politics, it is easy to cherry-pick data and come to whatever conclusion you want" (parr. 1). This "post-truth" phenomenon has been linked to the growing disdain for logical evidence, mainly in political discourse, that is, what really matters for the masses is not whether political discourse can be proven with facts or not, but rather that the only thing that matters is the receiving public of said discourse, since they are the ones who, based on their beliefs, values and ideals, endorse said information as real or viable, leaving aside factual evidence and science [41].

Currently, attention to "fake news" makes it difficult to distinguish between what is real and unreal, so this condition is an indication that we are entering an era after the truth [42]. In relation to this, we have that the terms "post-truth" and "fake news" are increasingly common in contemporary life, and can be explained as a fragmented media landscape, in which information is ambiguous and the truth is subject to the social mega trends, a product of collective distrust towards governments based on the very unequal conditions between individuals [43]. In such a way that "post-truth" "would be referring to the flagrant lies routine in every society and offers politicians access to lies without condemnation" [44].

We live in times where certain corporations, governments and political parties, with clandestine technologies, manipulate and economically exploit "massive information"

or also called “big data”, managing the masses at their will, creating trends in networks, dividing people into opinions and discrediting the truth, to favor false and conspiracy models or theories, left logic and acting on impulse or emotion, in the absence of control over online information and its dissemination due to the weakening of the entities in charge of regulate information [45]. In itself “it is about indicating not so much the idea that we are a past truth in a temporal sense (as in the postwar), but in the sense that the truth has been eclipsed by the irrelevant” [46]. So we have that “false information” or “misinformation” is impacting the trust of entire groups and also affects government institutions [47], promoting little attachment to public policies of all kinds, in the face of collective fear. and social distrust as a result of perceived institutional incapacity, the government’s disinterest in guaranteeing access to health for all people, and police brutality; left access to human health at a global level to chance and the economic possibilities of each individual [48].

Thus, the term “fake news” is “post-truth” [49], so that “false” or “fake” information has its origin in the lack of scrupulousness of the electoral political contexts in the United States in the year 2016, given the chaos generated in virtual communities based mainly on adulterated or unfounded information, which had an impact on the elections [37-39,50,51].

It is known that fake news is initially spread in non-popular media, and permeates public opinion as it is shared by internet users [52]. The impact that media information of all kinds generates on society is undeniable, so whether the information is real or not, it represents a stressor for the central nervous system of individuals, that is, when the news stimulus or the informational stressor is perceived by the brain, the body immediately launches its stress reaction mechanisms [53,54].

It can be stated that there is a response activation system in the face of danger that is turned on, triggering a whole series of neurophysiological and biochemical mechanisms throughout the organism almost instantaneously, to confront the danger that the subject faces at that moment: whether it is a life or death situation, or whether it is a purely mental or ideological issue as commonly happens with people today, who present all kinds of stressors that test the stress response mechanism, but unlike the necessary autonomous response to the danger presented by wild animals and our human ancestors that they naturally had to face for their subsistence.

The aforementioned stressors currently have such a physiological and emotional impact that they do not disappear, but rather remain constant and for prolonged periods, so

once these neurophysiological stress response processes are activated, a series of biomolecular decompensations are triggered and/or hormonal that wear down the individual in the long term, activated without control and are observed more and more as the alert persists and physical and mental wear and tear occurs in the autonomic effort that the body makes to survive [55-57]. As a result of this situation, the body destabilizes its homeostatic balance and the longer the body remains in active mode in the face of fear or danger, the greater this decompensation in organic functioning will be [58-60].

If people remain exposed to stressors constantly for a long period of time, catastrophic consequences can be considered for the health and well-being of societies, leading to chronic-degenerative diseases, acute and post-traumatic stress, and avoidance habits. addictive, predisposing the body to get sick from viruses and/or pathogens, by weakening the immune system [61,62].

In such a way that, for many years now, the dynamics of social life, as well as the accelerated pace of life of people around the world, has led to a global mental health crisis in general, since for several years or decades, discomfort and comorbid mental illness have been documented in people, as a result of the high levels of stress that people must face in their daily lives, even leading to psychopathy, and psychosis [63-69].

So the stress produced by the infodemic during COVID 19 was such, that we must be aware of the future impact that this environment of mistrust detonates on global mental health, based on what Maslow AH [70] proposes in relation to the basic needs for human self-realization, of which we have that security is one of the main ones, for this reason all those things or situations that jeopardize the perception of security in individuals will directly influence the activation of the evolutionary stress response system. Security provides confidence in people and the lack of certainty of events generates a perception of insecurity, which in turn evokes feelings of social unrest, a fundamental process to achieve a strong fabric with social cohesion in societies [71,72].

Consequently, this panorama of severity in relation to the prevalence of mental illness, as well as the predisposition of the environment and social dynamics in general for societies in previous years, is that unexpectedly during the last year, a pandemic of health, derived from COVID-19, a virus that emerged in Wuhan, China, at the end of 2019, and that in a matter of months spread to almost all regions of the planet, resulting in a serious health problem, generating millions of deaths and sick in all countries and cultures; So in a short time it went from being a local phenomenon to becoming a global pandemic, triggering alerts and putting governments and health institutions around the world [73-76].

In an attempt to contain the spread of the virus, at the expense of saving human life, a global closure of activity was carried out in a significant way, where scientific literature showed evidence of these social isolation measures as favorable for the containment of the virus, even knowing the effects on mental health problems that this would cause at a medium term [77-79]. As a result of some of these confinement measures, to contain the COVID-19 virus, various situations of psycho-emotional discomfort began to arise among people. Everything happened in a very short period of time, while the virus spread in the world, a series of negative conditions emerged in people's mental health, as a result of isolation and confinement due to the mandatory quarantine mandate in many countries around the world [80-87].

Added to this situation of poor social support and contact between people, the complex grief processes for the death of family members, friends and people in general that many people experienced during COVID 19 around the world caused a considerable social trauma condition for these communities [88-91]. Uncertain working or economic conditions should also be added in the face of irreparable economic losses and community trauma people had to experience [92-97]. Likewise, we should add the predisposition to disease and mental illnesses due to poor nutrition and avoidance-addictive behaviors that had an expanded increase after COVID 19, and excessive caloric intake of processed foods, which modify homeostatic functioning and generating additional problems [98,99]. Along these same lines, it must be taken into account that people with obesity and comorbid diseases like diabetes, were the most affected by the virus [100]. Finally, the widespread fear or perceived vulnerability to contagion must be taken into account [101,102].

All of these conditions together generated a favorable breeding ground for symptoms of mental discomfort in general, because each condition is in itself a variable that predisposes to mental illness and comorbidities, even more so all of them together, giving way to a whole series of psychological conditions, as an outcome of the adverse and complex mental health and commorbidity pandemia, faced today. During recent months, a growing number of scientific publications report an association between mental illness as a consequence of the pandemic caused by COVID 19 and the mental illness boom after COVID 19 [103-113]. Given that each of the different reported variables of mental illness are not only present in the vulnerable population, but also appear in health workers and front-line people, who were seriously affected during and after COVID 19 with hyperarousal alarming states of psychological discomfort, complicated mental health situation [114-116]. Along with the COVID 19 pandemic, a medical and psychosocial

nature phenomenon called infodemic, which has to do with information specifically associated with COVID-19 and post COVID 19 information, whether true or false, much or little, have led to a breeding ground for people's misinformation, and, therefore, insecurity derived from non-certainty or non-truth, the "post-truth reality".

The aforementioned situations in relation to the health pandemic, some derived from the COVID-19 virus itself, such as the physical conditions to the body in those who suffer from it, the collateral effects of inflammation in the nervous system and the traumatic consequences. of mental order in those who have suffered it, the impact on the families of patients, mainly when there is death, and the social stigma that derived from the rejection and fear of the sick, and in this case the worldwide widespread infodemia and its psychosocial effects as a second condition resulting from fear, doubt and social distrust, produced by the overwhelming number of information, both false and real, about COVID-19 [117].

Today we talk about the implications for mental health of the excessive bombardment and hazardous information disseminated through all media, reference is made to the impact of this on people's mental health, and how this information affected the minimization of the spread of the virus of COVID-19, as well as the voluntary or involuntary modification of beliefs, myths and realities about it by media, social groups or governments. Therefore, the excessive or abundant information, also named, infodemia, or false information or with an evident intention of discrediting official sources, that is, disinforodemia [118]. Has demonstrated to be hazardous for Mental Health indexes worldwide.

The reality is that this phenomenon of information consumption is now linked to mental problems [119,120]. Likewise, exposure to social networks has an impact on mental health in very precise times such as the quarantine [106]. Therefore, the fight of health agencies and governments was not only against the virus and its spread, but it also had to be focused on behaviors, beliefs, attitudes, prejudices and perception to an adequate management of this pandemic situation which now demonstrated to be an additional factor that complicated care and containment of the ravages of the disease itself, but above all it generated uncertainty and insecurity in people, which added to the conditions of mental vulnerability derived from lack of security, or the perception of insecurity, generated high levels of stress, anxiety and depression. Stress, as an innate mechanism for coping with fear, generates physiological sensations that, when the stressor does not disappear or remains latent, lead to anxiety and social discomfort, a product of sustained decompensation.

So, once the link between COVID-19 and the mental conditions generated by the experience of living in times of global quarantine or collective forced confinement is documented and understood, which have left as evidence that not only the virus itself brought consequences, the news and information distributed in digital and traditional media brought high indexes of risk perception, fear, uncertainty and ignorance, and generated hyperarousal alarms in all the world, stress and insecurity in post-pandemic communities.

There is evidence in the scientific literature to argue that the COVID-19 situation has significantly shaken mental health at a global level, evoking three major variables in general: anxiety, depression and perceived stress [112]. However, this is not new, but the global panorama regarding mental health and comorbidity was already serious and in the world in years prior to the COVID-19 pandemic, since the disorders mental disorders have increased and sustained during the years 2018 and 2019 [121-124].

Currently, an attempt has been made to document comparative studies of before (pre) and after (post) COVID-19 in European countries before the resurgence of the pandemic, and it has been found that people express greater discomfort as a result of the pandemic, mainly highlighting an increase in anxiety compared to previous years, and also, an increase in depression, in the United States [125-128].

So, added to the complex pre-existing panorama of mental health in general, we had all these emerging conditions resulting from the adverse situations due to the emergence of COVID-19, and the way in which governments and their unclear policies managed this global crisis, the institutions in charge of health and its deficiency in the supply of supplies and the low capacity to care for patients, and the economic collapse. The pandemic came to shake the already battered mental health worldwide with consequences in our post pandemic mental health scenario.

Therefore, as mental health professionals, we must be alert to this emerging phenomenon, and therefore develop and propose interventions aimed at the primary and secondary levels of prevention, care and online health monitoring through information and intervention programs to preserve the world mental health, or else in the coming years we will have a negative outlook regarding well-being and mental health commorbidities. We must be aware that the ravages, impact and other indicators of the effects of the COVID-19 pandemic are nothing more than the tip of the iceberg, and that in this post-pandemic panorama a secondary mental health pandemia is now a current emergency, to take care about.

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