

Depression and anxiety during COVID-19 pandemic

Depresión y ansiedad en los tiempos de la pandemia de COVID-19

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Introduction

The pandemic that we have been suffering since this year 2020, caused by coronavirus Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) disease (COVID-19), has marked our lives and has modified our behaviors, our perceptions, and the environment.

This health situation has forced governments to take important measures for restricting normal activity of society, both in our country and throughout the world, with undisputed benefits for public health, but with important sequels on the economy and population's mental health.

When he presented his performance report on the effects of COVID-19 and mental health, United Nations Secretary-General, Antonio Guterres, pointed out that the people who are currently at higher risk are frontline health care workers, older adults, adolescents, and young adults, people with preexisting mental health conditions and those caught up in conflicts and crises. Dévora Kestel, Director of the Department of Mental Health and Substance Use of the World Health Organization, declared that the number of people with mental health problems has increased, and that suicide rates have grown. Furthermore, Dr. Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization, pointed out that the impact of the pandemic on population's mental health is highly concerning. Social isolation, fear of contagion, and the

loss of loved ones have been exacerbated due to the lack of income or work. All this can generate a catastrophic scenario for mental health. However, it should be noted that, so far, there are not many publications investigating the issue of mental health, both in Mexico and in other countries. There are only few observational papers in the literature and many are articles of opinion or points of view^{1,2}.

Mental health problems in the COVID-19 pandemic

In existing literature, studies have indicated that anxiety diagnosis figures have increased as a result of the COVID-19 pandemic. Anxiety diagnosis is often involved with sleep disorders and comorbidity with depression. Identifying populations at higher risk of adverse mental health outcomes, including COVID-19 patients and their families, individuals with existing physical or psychiatric morbidity and health care workers, is a highly important public health task during and after the pandemic.

Another line of evidence is the experience gathered from those affected by the 2014-2016 Ebola outbreak, which suggests that exposure to a pandemic may be associated with symptoms of anxiety, depression, and post-traumatic stress disorder³.

Health anxiety, which arises from misinterpretation of bodily sensations and perceived changes, can have a protective effect on daily life. However, during an

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infectious disease outbreak, particularly if information is variable or exaggerated by the media, health anxiety can become excessive and lead to what we call hypochondria. At individual level, this can be manifested as maladaptive behaviors (repeated medical consultations, medical care avoidance even if the individual is really sick, hoarding of particular hygiene utensils such as toilet paper and sanitizers), and, at a broader social level, it can generate distrust in public authorities and feelings of being the scapegoat of particular populations or groups.

It is important to pay special attention to specific psychiatric conditions that may be initiated or exacerbated by the disaster. Mental health-care centers for seriously ill patients, halfway houses, outpatient clinics, addicted patients' meetings, and psychiatric outpatient services have been temporarily called off. This has been the detonator that has rocketed decompensation of a large number of patients with mental disorders who were being properly controlled. This experience has been global. On the other hand, we know that homeless people are a highly vulnerable population, given that a significant proportion of them suffer from mental disorders or serious addictive problems, and this population has been observed to be highly susceptible to COVID-19.

Individuals living with the autism spectrum, as well as those with psychiatric pathologies such as chronic depression and schizophrenia, are more likely to suffer from chronic diseases, autoimmune comorbidity, and to consume more drugs on a chronic basis, which may increase vulnerability to COVID-19.

On the other hand, due to underlying psychiatric pathology, many patients experience loneliness and isolation, coupled with restricted access to usual therapy venues or to the support staff that cares for them, which surely is causing greater decompensation of existing pathologies. Although many of these services are not considered essential, aid assistance is essential for this type of patients for personal hygiene, eating patterns or for taking medications. In addition, the serious economic problems of the psychiatric population, in which it is common for high unemployment rates to exist, must be taken into account.

Increased alcohol and drug use is another major area of concern in the field of mental health. There are different reports that have indicated that this has occurred due to the situation of confinement and stress caused by the pandemic.

In China, an increase of 22.6% in depressive symptoms has been reported in the population of young people, which is higher than that reported in other investigations at primary schools (17.2%). During the

COVID-19 pandemic, reduced outdoor activities and social interaction may have been associated with an increase in depressive symptoms in children. In addition, 18.9% of students were found to have symptoms of anxiety, which is a higher prevalence than in other surveys. These findings suggest that serious infectious diseases may influence on children's mental health as other traumatic experiences do⁴.

Perhaps no group of people with mental illnesses is as directly affected by COVID-19 outbreak as those living with obsessive-compulsive disorder (OCD). Paradoxically, they are "experts by experience" in an attempt to avoid hazards by acting with compulsive behaviors. In particular, increased anxiety about the virus is fueling existing obsessive fears of contamination in some people with OCD and triggering even more harmful compulsive actions. For these people, coronavirus can become everything they think about. In fact, some patients with contamination OCD are expressing doubts about the rationality of the therapies that have been regularly applied. Several patients have told their doctors that they "were right all along", since now everybody behaves like them. A working group of clinical experts from the International College of Obsessive Compulsive Spectrum Disorders and the Obsessive-Compulsive and Related Disorders Research Network of the European College of Neuropsychopharmacology has issued a consensus statement with the purpose to offer, as soon as possible, pragmatic guidance to physicians for the management of this complex challenge¹. These recommendations, which apply to any psychiatric pathology, indicate that, in the first place, there must be a compassionate approach, understanding the sociocultural context of the patient; in the second place, a good medical history should be obtained; third, risk of suicide should be evaluated; fourth, internet use and news consumption should be assessed; and finally, appropriate psychoeducation about COVID-19 physical and emotional risks should be provided.

If there is a psychiatric problem, pharmacological treatment has to be examined, and continuation of psychotherapy programs (telepsychotherapy) should be adjusted; patients on treatment with transcranial magnetic stimulation or deep brain stimulation should put it on hold until the end of confinement. Occupational activities, routines, and circadian rhythms should be guaranteed, since isolation is not necessarily loneliness. It is also important to note that, in the psychiatric treatment of patients with COVID-19, care must be taken with benzodiazepines due to their

effects on respiratory system. Some retroviral agents increase QT interval on electrocardiogram, which may interact with antipsychotic and anticonvulsant drugs.

Domestic violence

The increase in violence within families is a common story in this pandemic. Stay-at-home measures entail an increased risk of children witnessing or suffering violence and abuse. Children with disabilities, children in crowded environments, and those living and working on the streets are particularly vulnerable. Other groups at particular risk are women (especially those who juggle homeschooling, home-office, and household chores), older adults and people with pre-existing mental health conditions. Several publications have identified populations that may be more vulnerable to the impact on mental health during and after the COVID-19 pandemic, and some of them have provided suggestions on interventions and provision of services. Vulnerable groups identified by these authors include older adults, homeless migrant workers, mentally ill pregnant women, and Chinese students living abroad⁵.

Economy and mental health

Global effects on economy secondary to the pandemic are incalculable. Employment instability, family income reduction, and increased debts are undoubtedly growing complaints that are affecting population's mental health. Without belittling these effects, it would also seem that sometimes our brains focus much more on bad, negative, and catastrophic aspects. It is common for destructive criticism, continuous attention to bad news about deaths and disasters, or to calamities that happen to people, to be the headlines of newspapers and newscasts rather than the achievements and successes of humanity. This perception bias has been called the "negativity effect". Psychological experiments have been carried out in which paradigms are proposed to participating subjects, and when there are losses of the money granted to them in the experiment, it affects them emotionally much more than when they win the same amount. Some experiments have tried to find out if there are situations in which the "good" events compensate or have a greater impact than experiencing the "bad" event, and no situations of this sort have been found. Our brain's negativity bias has an evolutionary sense because it kept our ancestors alert to life-threatening

dangers, but it distorts our perspective in today's media environment. A non-stop barrage of bad news and crises makes us feel powerless and leaves us unnecessarily afraid and angry. However, once we recognize our negativity bias, the rational brain can overcome its power when it is harmful and use that power when it is beneficial. In fact, instead of exasperating about what is wrong in life and the world, we can see how much we are doing well and how we can be even better. A highly important strategy is self-control strengthening: being realistic when establishing goals, controlling their progress, and maintaining fortitude when failing (resilience). This has been crucial in financial health, as well as emotional well-being, restoration⁶.

Problems in healthcare workers

Health care workers are at significant risk of adverse mental health outcomes during the COVID-19 pandemic. Frontline health care workers, who are faced with heavy workloads, life-and-death decisions, and infection risk, are particularly affected. The reasons for this include long working hours, infection risk, shortage of protective equipment, loneliness, physical fatigue, and separation from the family⁷. In Spain, up to 20% of health personnel have become infected, and being off duty has generated in them a great sense of guilt for not being able to continue helping, in addition to the anxiety of any patient faced with COVID-19: fear of becoming infected, fear of infecting family members, and the shortages associated with problems for dealing with the over-demand of the pandemic itself. There is a dissociation and repression of daily activities with regard to affective experience, but work chronicity will eventually make for the emotional crisis to explode. An alternative that has been proposed is offering group services, establishing a sort of leisure activities among doctors and favoring asking for help; even being health personnel, not to self-medicate. So far, the prevalence of asymptomatic SARS-CoV-2 carriers among health workers and in contacts of COVID-19 patients in Mexico City is unknown, as well as its clinical and epidemiological relevance.

The doctor as a patient

Several studies have shown a high prevalence of symptoms of post-traumatic stress disorder, anxiety, fear, depression, and frustration in medical emergency

professionals involved in the 2002-2004 SARS epidemic. The most common symptoms included recurrent and intrusive thoughts about events experienced during patient care, difficulties in falling asleep, memory and concentration problems, hypervigilance and hyperarousal, outbursts of anger, work motivation loss, mood dysregulations, avoidant behaviors toward activities and workplaces, alcohol or drug abuse, numbness, isolation, and psychological detachment⁸. These clinical manifestations have been reported to have persisted in health professionals many years after the outbreak. However, not all of them developed these symptoms; apparently, the predictive factors for health professionals are the female gender, low socioeconomic status, traumatic events during life, and premorbid psychopathology.

On the other hand, it is well known that doctors, and health workers in general, are not the best patients, with high rates of self-medication, questioning of colleagues who treat them and poor treatment adherence⁹. These factors make health personnel more vulnerable to more serious forms of disease and have even translated into higher suicide rates than in the general population¹⁰.

A study conducted in China evaluated the presence of psychopathology in 1257 health workers exposed to COVID-19. A considerable proportion of participants reported symptoms of depression (50%), anxiety (45%), insomnia (34%), and anguish (72%). Female nurses, women, frontline health care workers, and those working in Wuhan showed higher severity in all mental health symptoms' measurements than other health care workers¹¹. Frontline health care workers involved in COVID-19 patients direct diagnosis, treatment, and care were associated with a higher risk of symptoms of depression, anxiety, and insomnia. Lack of social connectivity has been clearly associated with burnout syndrome (physical and emotional exhaustion) in doctors¹². Social connection, particularly teamwork, addresses the psychological needs of friendship and esteem and is not a luxury, but a basic human need that is incorporated to our biology.

Physicians are scientists, and as scientists, it is their responsibility to apply what is known from the literature on neuroscience, and management on how to create positive and supportive work environments that lead to professional participation and optimal patient care.

Management strategies

The increase in the number of people who need mental health care or psychosocial support has been

exacerbated by the interruption of physical and mental health services in many countries. In addition to the conversion of mental health centers into centers for the care of people with COVID-19, health-care systems have been affected by mental health personnel infected with the virus and the closure of face-to-face services. Community-based services, such as self-help groups for alcohol and drug dependence, have not been able to gather for several months in many countries.

In immediate and continuous response, consensus guidelines emphasize the importance of interventions for keeping calm, building community, and nurturing hope. From a public mental health perspective, the strategies for responding to mass trauma and disaster emphasize the importance of focusing on resilience.

It is essential for people who live with mental health problems to have continuous access to treatment. Changes in approaches to the provision of mental health care and psychosocial support are showing signs of success in some countries. In Spain, to ensure care continuity, local policymakers identified emergency psychiatry as an essential service for allowing mental health workers to continue outpatient services by telephone. Teams from Egypt, Kenya, Nepal, Malaysia, and New Zealand, and even from Mexico, among others, have increased the capacity of emergency telephone lines for mental health to reach people in need.

Support of community actions that strengthen social cohesion and reduce loneliness, particularly for the most vulnerable, such as older adults, must continue. Such support is required from the government, local authorities, the private sector, and the general public, with initiatives such as the provision of food parcels, regular telephone calls to people who live alone and organization of online activities for intellectual and cognitive stimulation.

The rapidly-evolving new experience in daily practice has helped to lessen many of the previous objections against telemedicine. The idea that telemedicine is only appropriate for interviews is false, and simple psychiatric evaluations have been found to be suitable for being carried out remotely. Another common concern is that telemedicine is largely restricted to young patients with high educational levels, with many other populations being left unattended. However, during this crisis, the adoption of new technologies, although not simple, or inconvenient or unavailable to all patients and doctors, has been surprisingly quick. We must recognize that global society has changed and

now many older adults are skilled for using smart-phones or video conferences. Professional organizations, such as the American Psychiatric Association, have introduced new guidelines for telemedicine visits and have addressed critical legal issues and standards of care. Telemedicine rapid expansion to current daily practice also poses challenges, and one concern is about privacy and safety. Not all tools available for video conferencing meet internationally accepted standards for protecting each participant's confidentiality. This applies both to patients and medical professionals who provide new remote services. Therefore, physicians who contemplate offering remote services to patients should take all necessary measures for the privacy of participants to be safeguarded.

Controlled studies that have compared the efficacy of face-to-face cognitive behavioral therapy versus telepsychotherapy have already been published. In one trial¹³, internet-delivered cognitive behavioral therapy did not appear to be inferior to face-to-face therapy for health anxiety, while incurring lower net social costs. The online format has the potential to increase access to evidence-based treatment for health anxiety. Patients and their families now have a better understanding of the need for remote visits. There are powerful anecdotes of remotely-provided care, which include highly emotional issues, such as delivering bad news. Surprisingly, many patients prefer to receive such bad news in the safety of their own home instead of the more impersonal clinical setting. The expansion and reorganization of mental health services that are currently needed on a global scale are an opportunity for building a mental health system that is appropriate for the future.

Mental health departments should be able to assume a position of leadership in the psychosocial management of disaster-like situations, and this requires the acquisition of new skills, especially on how to correctly inform the population about the risk, to train on and disseminate effective preventive and

management procedures for disasters, support health personnel and rescuers, and accompany those who undergo grief.

Conflicts of interest

The author declares that he has no conflicts of interest.

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