The psychiatric impact of coronavirus infection in the population

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ABSTRACT

The Coronavirus pandemic that started last year has an unsuspected magnitude, spreading worldwide. In addition to physical suffering, patients confirmed or suspected of COVID-19 face severe psychological pressures. Isolated, suspicious cases may suffer from anxiety due to uncertainty about their health and may develop obsessive-compulsive symptoms, such as repeated temperature checks, sterilization or sanitization of surrounding objects. People with
psychiatric disorders are more likely to develop severe episodes of depression, anxiety, insomnia stress and even forms of post-traumatic stress. In the face of these new critical situations, front-line medical staff, who are directly involved in the diagnosis, treatment and care of patients with COVID-19, risk developing forms of psychiatric suffering. Unfortunately, medical staff also face numerous phobias imposed by restrictive measures in the context of the pandemic: hand disinfection, wearing personal protective equipment, disposable gowns, etc. Also, another phobia of the medical staff is the distancing from the family or the risk of illness. Emerging mental health issues related to this global event can evolve into long-term health problems, isolation and stigma. Telepsychiatry and behavioral therapy through smart devices should focus on relaxation exercises in order to counteract anxiety, post-traumatic depression-like symptoms, anger and irritability. Planning activities (for example, exercising at home) can improve your physical and mental health. COVID-19 infection is a global problem that has caused a radical change in lifestyle, the impact of these changes, restrictions and major changes being received differently depending on the character of each person. This pandemic seems far from over. We hope that the number of patients with mental illness will not increase exponentially and through alternative methods we will maintain the well-being of those who exist.

KEYWORDS:
Coronavirus, anxiety, depression.

INTRODUCTION
The Coronavirus Pandemic (SARS-CoV-2), which initially occurred in Wuhan, China, has spread nationally and then worldwide. The application of strict quarantine measures, unprecedented so far, has kept a large number of people isolated and affected many aspects of people's lives around the world.

In the last months, following the outbreak of the pandemic, an increasing number of information have had an impact on global mental health. The media, local and international health organizations (including the World Health Organization), epidemiologists, virologists, and opinion leaders present data, recommendations and updates on the spread and lethality of SARS-CoV-2 (1). The burden of this infection on global mental health is often neglected, risking to contaminate more and more people in the general population.

INFECTED PATIENTS
In addition to physical pain, patients confirmed or suspected of COVID-19 face high psychological pressures as well as other health problems. Confirmed and suspected cases of COVID-19 may have fears about the consequences of the disease as well as its contagion. Consequently, they may experience episodes of loneliness, denial, anxiety, depression, insomnia and despair, which may influence therapeutic compliance (2).

Isolated suspected cases may suffer from anxiety due to uncertainty about their health and may develop obsessive-compulsive symptoms, such as repeated temperature checks and sterilization or sanitization of surrounding objects. In addition, a strict policy of quarantine and follow-up by health authorities could lead to rejection by society, considerable financial losses, discrimination and stigma (3, 4). Also, limited knowledge of
COVID-19 appears to affect central nervous system function, which may indicate that neuropsychiatric symptoms may occur in the general population. A retrospective study that included patients with COVID-19 (n = 214) found that manifestations of the central nervous system (dizziness, headache or impaired consciousness) occurred in 25% of cases (6).

Another particularly important aspect is that psychiatrists perform consultations in patients receiving pharmacotherapy for COVID-19. However, the side effects of psychiatric medication for COVID should not be neglected. As an example, hydroxychloroquine, one of the most widely used drugs for hospitalized COVID-19 patients, is associated with psychiatric side effects, such as mood and anxiety disorders, insomnia, and, more rarely, psychosis (7).

PSYCHIATRIC PATIENTS
People with psychiatric disorders are more likely to develop severe episodes of depression, anxiety, insomnia, stress and even forms of post-traumatic stress. At the same time, the difficulty in accessing health services during the pandemic favored the underlying disease. However, the immediate mental health care needs of these patients were considered not to be an emergency when the number of COVID-19 cases increased sharply. Then, patients were encouraged not to go to the hospital, as health services were dedicated to the management of terminally ill patients and cases suspected or confirmed by COVID-19. Quarantine / isolation measures have also hampered patients' access to psychiatric practices as well as other health care providers either due to insufficient medical resources or fear of contracting COVID-19 in hospitals that have managed infected patients (8).

However, certain measures are needed to support this category of patients, especially those with suicidal ideation. Improved access to tele-psychiatric services, home delivery of psychotropic drugs and online psychiatric first aid resources play a key role in minimizing the severity of psychiatric symptoms (8, 9).

CLINICIANS
Healthcare professionals are no exception when it comes to the impressive impact of this pandemic on mental health, as many of them have direct contact with infected patients, close contact with patients' families / relatives, and are sometimes involved in epidemiological investigations.

A notable example would be the psychological trauma observed during the SARS epidemic in 2003 when 27% of the medical staff reported psychiatric symptoms (10). Similar effects appeared in 2015 during the Korean MERS epidemic, when medical staff showed symptoms of PTSD (11).

In the face of these new critical situations, front-line healthcare professionals who are directly involved in the diagnosis, treatment and care of patients with COVID-19 are at risk of developing forms of psychiatric suffering. The growing number of confirmed and suspicious cases, the overwhelming workload, the exhaustion of protective equipment, the lack of specific treatment and the intense media coverage of the problem can all contribute to their mental burden (12).

Recent studies show that in emergency units, Wuhan medical staff faced a high risk of infection and inadequate protection against contamination, overload, feelings of
frustration, discrimination, isolation and exhaustion (13).

These problems not only affect the attention, understanding and decision-making capacity of medical staff, which could affect the fight against COVID-19, but could also have a lasting effect on their general condition (14).

Another cross-sectional study that included 1257 subjects in China revealed a high prevalence of psychiatric symptoms among medical staff treating patients with COVID-19. Depression (50.4%), anxiety (44.6%), insomnia (34%) and stress (71.5%) were the main manifestations discovered. Most of the participants were women, nurses, aged between 26 and 40, married. They are likely to be at the highest risk of infection due to their close and frequent contact with patients as well as numerous shifts (15).

Another cross-sectional study evaluated nearly 300 physicians and nurses who cared for patients with COVID-19 in Singapore from February 19 to March 13, 2020, using self-reporting screening tools. Relatively few physicians reported anxiety, depression, and post-traumatic stress disorder (PTSD) (approximately 5-10), results that the authors attributed to better training of clinicians, based on their previous experience with the 2003 SARS epidemic (16).

**GENERAL POPULATION**

The almost exclusive focus on transmitting COVID-19 infection worldwide may distract the public from the psychosocial consequences for both affected individuals and the general population. Emerging mental health issues related to this global event can evolve into long-term health problems, isolation and stigma. Global measures should include measures to reduce psychosocial stressors, in particular in relation to isolation / quarantine, fear and vulnerability among the general population.

The mentioned manifestations among the medical staff were also found in the general population. Studies show that the prevalence of PTSD was between 4% and 41%; the prevalence of major depression increased by 7% after the outbreak. There are several factors that can increase the risk of developing the conditions described: gender, poor socio-economic status, the existence of interpersonal conflicts, frequent use of social media and low social support (17).

During each community crisis, people often look for information about ongoing events in an attempt to keep up to date. However, when information on official channels is missing or irregularly broadcast, people can be exposed to misleading data from social media and the media. This underscores the importance of formal updates at regular intervals and the need to monitor information to reduce exposure to misleading news and stress. In fact, the fear of the unknown leads to a higher level of anxiety in both healthy people and those with pre-existing mental health problems; unjustified public fear can lead to discrimination and stigmatization (18).

First, people's emotional responses are likely to include extreme fear and uncertainty, and negative social behaviors will often be driven by fear and distorted perceptions of risk. Second, special efforts should be directed at vulnerable populations, including infected and sick patients, their families and colleagues, individuals and their relationships with the community, people with pre-existing medical conditions (both physical and / or mental), providers of medical services, in particular nurses and doctors working directly with sick or quarantined people (19).
Patients with chronic diseases (cardiovascular disease, chronic kidney disease, diabetes mellitus) need regular medical monitoring. In this time of crisis, patients may also have difficulty getting maintenance treatment. As a result, preventive measures can lead to decreased physical well-being, which increases the risk of negative feelings and suicide (20).

The families of the deceased patients also suffer from the feeling of helplessness, the impossibility to say goodbye to the deceased relatives. The religious factor is all the more important as the funeral services have also been adapted to the current conditions of social distancing, preventing the organization of the services according to traditions (21).

PATIENTS MANAGEMENT
If possible, psychiatric consultations should be conducted by video conference or telephone, rather than face-to-face. The impact on the patient with the doctor's voice or image may be greater than text messages and emails. When face-to-face visits are required, personal protective equipment (eg masks) should be used and ideally, the consultation should be performed with a safe patient, avoiding group therapy (20, 22).

Given traffic limits and quarantine measures in many areas, online mental health services have been widely adopted, such as hotlines and mobile application platforms. Psychological care services, including counseling or intervention by telephone, internet and applications, need to be widely adopted by local and national mental health institutions in response to the COVID-19 outbreak. (23).

Telepsychiatry and behavioral therapy through smart devices should focus on relaxation exercises in order to counteract anxiety, PTSD-like symptoms, anger and irritability (24). Planning activities (for example, exercise at home) can improve your physical health (25).

Due to the prolonged blockade and closure of businesses, people face social isolation, lifestyle disruption and loss of personal income, while society loses its productivity in an inactive economy. Returning to work and reducing the spread of COVID-19 will improve self-esteem, financial situation and rebuild the social connection, while improving society's productivity, leading to a better quality of life and a lower level of depression and stress (26).

A recent article that included 24 papers that studied the psychological impact of quarantine on the population suggested the following steps to mitigate the negative effects: clarifying the purpose of quarantine and measures to be followed; understanding that a voluntary quarantine is associated with fewer side effects compared to a mandatory quarantine; emphasizing the altruistic benefit of quarantine by keeping others (especially those close to but not only) safe; finding the easiest way to purchase general purpose items (eg food and household necessities) as well as medical items (eg, prescriptions, thermometers, and masks) (27).

The difficulties posed by the COVID-19 pandemic, including isolation at home, economic hardship and limited accessibility to medical and mental health care, can give rise to suicidal ideation and behavior. Previous epidemics and pandemics have also reported suicide as an side effect of quarantine (28).

People diagnosed with moderate to severe anxiety or depression should be reevaluated during this period for suicidal thoughts and behavior; there are various ways in which this
screening can be done (from specialized tools to a simple question). Patients with COVID-19 and patients with established mental disorders should be encouraged to maintain social contact by telephone or computer / laptop / telephone, as well as face-to-face meetings that maintain physical distance. In addition, patients should be encouraged to access telemedicine treatment (29).

CONCLUSIONS
COVID-19 infection is a global problem that has led to a radical change in lifestyle. Unfortunately, this pandemic is not over and we do not know how long it will last. Their impact changes, restrictions, major changes are received differently depending on the character of each person. It should be noted that people with psychiatric illnesses need better supervision and counseling during the crisis. As we expected, the number of these patients has increased and new patients need to be helped and protected from external stress. Discussions through tele-medicine are an excellent idea as they manage to treat the cases but also to calm the patient.

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