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ARTICLE

“Pandemic fear” and COVID-19: mental health burden and strategies

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In the wake of the September 11 attack in the United States and the Kiss Nightclub fire in Brazil, psychological assistance task forces for victims and their families were quickly organized. However, during pandemics it is common for health professionals, scientists and managers to focus predominantly on the pathogen and the biological risk in an effort to understand the pathophysiological mechanisms involved and propose measures for preventing, containing and treating the disease. In such situations, the psychological and psychiatric implications secondary to the phenomenon, both on an individual and a collective level, tend to be underestimated and neglected, generating gaps in coping strategies and increasing the burden of associated diseases.^{1,2}

Although infectious diseases have emerged at various times in history, in recent years, globalization has facilitated the spread of pathological agents, resulting in worldwide pandemics. This has added greater complexity to the containment of infections, which has had an important political, economic and psychosocial impact, leading to urgent public health challenges.²⁻⁶ HIV, Ebola, Zika and H1N1, among other diseases, are recent examples.¹

The coronavirus (COVID-19), identified in China at the end of 2019, has a high contagion potential, and its incidence has increased exponentially. Its widespread transmission was recognized by the World Health Organization (WHO) as a pandemic. Dubious or even false information about factors related to virus transmission, the incubation period, its geographic reach, the number of infected, and the actual mortality rate has led to insecurity and fear in the population. The situation has been exacerbated due to the insufficient control measures and a lack of effective therapeutic mechanisms.^{5,7,8} These uncertainties have had consequences in a number of sectors, with direct implications for the population's daily life and mental health.

This scenario raises a number of questions: is there a fear/stress pandemic concomitant with the COVID-19 pandemic? How can we evaluate this phenomenon?

To understand the psychological and psychiatric repercussions of a pandemic, the emotions involved in it, such

as fear and anger, must be considered and observed. Fear is an adaptive animal defense mechanism that is fundamental for survival and involves several biological processes of preparation for a response to potentially threatening events. However, when it is chronic or disproportionate, it becomes harmful and can be a key component in the development of various psychiatric disorders.^{9,10} In a pandemic, fear increases anxiety and stress levels in healthy individuals and intensifies the symptoms of those with pre-existing psychiatric disorders.¹¹

During epidemics, the number of people whose mental health is affected tends to be greater than the number of people affected by the infection.¹² Past tragedies have shown that the mental health implications can last longer and have greater prevalence than the epidemic itself and that the psychosocial and economic impacts can be incalculable if we consider their resonance in different contexts.^{11,12}

Since the economic costs associated with mental disorders is high, improving mental health treatment strategies can lead to gains in both physical health and the economic sector. In addition to a concrete fear of death, the COVID-19 pandemic has implications for other spheres: family organization, closings of schools, companies and public places, changes in work routines, isolation, leading to feelings of helplessness and abandonment. Moreover, it can heighten insecurity due to the economic and social repercussions of this large-scale tragedy.

During the Ebola outbreak, for example, fear-related behaviors had an epidemiological impact both individually and collectively during all phases of the event, increasing the suffering and psychiatric symptom rates of the population, which contributed to increases in indirect mortality from causes other than Ebola.¹³ Currently, ease of access to communication technologies and the transmission of sensational, inaccurate or false information can increase harmful social reactions, such as anger and aggressive behavior.¹⁴

Diagnostic, tracking, monitoring and containment measures for COVID-19 have been established in several countries.⁶ However, there are still no accurate

Box 1 Mental health recommendations during pandemics and large-scale disasters

Government actions:	
<ul style="list-style-type: none"> - Encourage the participation of multidisciplinary mental health teams at national, state and municipal levels - Training in stress management, trauma, depression and risk behavior protocols - Standardize psychotropic medications and make them available - Ensure adequate resources and infrastructure for mental health services - Ensure that clinical and mental health care are accessible to the population - Develop psychoeducational materials that are easily accessible to the population 	<ul style="list-style-type: none"> - Provide official channels for updated information to the public - Provide alternative service channels (apps, websites, telephone); - Monitor and rebut fake news - Continuously encourage scientific research - Consider and respect cultural factors in the implementation of public policies - Collect epidemiological data that can support future prevention and mental health care policies
Individual recommendations:	
<ul style="list-style-type: none"> - Take care of yourself and others, keeping in touch with friends and family and finding time for leisure activities - Follow WHO and government health agency recommendations - Pay attention to your own needs, feelings and thoughts - Limit physical contact with other people while avoiding emotional distance - Monitor dysphoric mental states such as irritability and aggression - Develop a feeling of belonging to the collective care process - Consider the collective impact of your actions - Consider the impact of social actions on stopping or decelerating the disease - Do not disseminate information from unofficial sources - Maintain normal use of prescription medications 	<ul style="list-style-type: none"> - Limit exposure to pandemic-related news, since too much information can trigger anxiety disorders - Tell someone when you experience symptoms of sadness or anxiety - Assist, as much as possible, people in risk groups - Share contamination prevention information and instructions - Understand that stress and fear are normal in unknown situations - Avoid confusing the solitude of preventive confinement with abandonment, rejection or helplessness - Establish a support network (even if it is a virtual one) - Do not discriminate or blame groups or individuals for the contamination process - Maintain adequate sleep, nutrition and exercise patterns - Practice meditation (mindfulness) - Use positive psychiatry/psychology techniques
Care for special groups:	
<p><i>Children:</i> Maintain family and leisure activities (games). Explain the phenomenon in clear and accessible language; try to maintain the routine (insofar as possible), be available to answer any questions and understand that in such times children may be more irritable, sensitive, attention-demanding and regressive (e.g. bedwetting). It is important not to blame them for these behaviors: use a kind and reassuring approach. Teach them to express disturbing feelings, such as fear, in a positive way. Control the amount of information they are exposed to so that they do not become even more frightened. In case of quarantine, be creative, inventing games (especially involving physical activity) to avoid tedium.</p>	<p><i>At-risk populations requiring quarantine (the immunodepressed, older adults, etc.) and psychiatric patients:</i> Help protect these populations from contact with the pathogen, especially the most vulnerable; pay special attention to them through phone/video calls and social networks. Be available to help with tasks that must be carried out in places of risk (e.g., shopping at the supermarket). Maintain greater vigilance regarding symptoms and guarantee every possible comfort when they are in isolation. Help them adhere to clinical and psychiatric medication regimens and provide emotional support.</p>
Hospitals and health care referral centers:	
<ul style="list-style-type: none"> - Establish a contingency plan and strategies for dealing with more serious psychiatric symptoms - Establish a relationship of transparency and trust with employees that prioritizes equity and well-being - Ensure adequate training for teams and provide support or supervision, which can be done in group settings - Provide quality clinical and psychological assistance for teams exposed to risk situations - Maintain an empathetic and flexible posture when facing the fears, stress and changes in routine common to such situations - Ensure mental health care for the family members of people who may be affected by the pathogen - Inform everyone that feelings such as fear, anxiety and sadness are normal at times like this and guide those who are seeking help whenever necessary - Ensure a healthy climate of communication and collaboration between professionals and teams, in addition to providing expert intervention in interpersonal problems that may arise - Constantly value the work of those who are exposing themselves to risk for the social good 	

epidemiological data on disease-related psychiatric implications or their impact on public health. A Chinese study provided some insights in this regard. Approximately half of the interviewees classified the psychological impact of the epidemic as moderate to severe, and about a third reported moderate to severe anxiety.¹⁵ Similar data have been reported in Japan, where the economic impact has also been dramatic.¹¹

Another study reported that patients infected with COVID-19 (or suspected of being infected) may experience intense emotional and behavioral reactions, such as fear, boredom, loneliness, anxiety, insomnia or anger,¹¹ as has been reported about similar situations in the past.¹⁶ Such conditions can evolve into disorders, whether depressive, anxiety (including panic attacks and post-traumatic stress), psychotic or paranoid, and can even lead to

suicide.^{17,18} These conditions can be especially prevalent in quarantined patients, whose psychological distress tends to be higher.¹⁶ In some cases, uncertainty about infection and death or about infecting family and friends can potentiate dysphoric mental states.^{11,18}

Even among patients with common flu symptoms, stress and fear due to the similarity of the conditions can generate mental distress and worsen psychiatric symptoms.^{15,19} Despite the fact that the rate of confirmed vs. suspected cases of COVID-19 is relatively low and that the majority of cases are considered asymptomatic or mild, as well as that the disease has a relatively low mortality rate,^{20,21} the psychiatric implications can be significantly high, overloading emergency services and the health system as a whole.

In conjunction with actions to help infected and quarantined patients, strategies targeting the general population and specific groups must be developed, including health professionals who are directly exposed to the pathogen and have high stress rates.²² Although some protocols for clinicians have been established, most health professionals who work in isolation units and hospitals are neither trained to provide mental health assistance during pandemics^{1,17} nor receive specialized care. Previous studies have reported high rates of anxiety and stress symptoms, as well as mental disorders, such as post-traumatic stress, in this population (especially among nurses and doctors), which reinforces the need for care.^{22,23}

Other specific groups are especially vulnerable in pandemics: older adults, the immunocompromised, patients with previous clinical and psychiatric conditions, family members of infected patients and residents of high-incidence areas. In these groups, social rejection, discrimination, and even xenophobia are frequent.¹⁷

Providing psychological first aid is an essential care component for populations that have been victims of emergencies and disasters, but there are no universal protocols or guidelines for the most effective psychosocial support practices.²⁴ Although some reports on local mental health care strategies have been published, more comprehensive emergency guidelines for such scenarios are unknown,^{1,17,19} since previous evidence refers only to specific situations.²⁴ In Brazil, a large developing country with pronounced social disparity, low education levels and humanitarian-cooperative culture, there are no parameters for estimating the impact of this phenomenon on the population's mental health or behavior. Will it be possible to implement effective preventive and emergency actions aimed at the psychiatric implications of this biological pandemic in broad spheres of society?

Specifically for this new COVID-19 scenario, Xiang et al., suggest that three main factors should be considered when developing mental health strategies: 1) multidisciplinary mental health teams (including psychiatrists, psychiatric nurses, clinical psychologists and other mental health professionals); 2) clear communication involving regular, accurate updates on the COVID-19 outbreak; and 3) establishing safe psychological counseling services (for example, via electronic devices or apps).¹⁷

Finally, it is extremely necessary to implement public mental health policies in conjunction with epidemic and pandemic response strategies before, during and after the event.¹³ Mental health professionals, such as psychologists, psychiatrists and social workers, must be on the front line and play a leading role in emergency planning and management teams.¹ Assistance protocols, such as those used in disaster situations, should cover areas relevant to the individual and collective mental health of the population. Recently, the WHO²⁵ and the U.S. Center for Disease Control and Prevention²⁶ published a series of psychosocial and mental health recommendations, several of which are included in Box 1. This is in line with longitudinal data from the WHO demonstrating that psychological factors are directly related to the main causes of morbidity and mortality in the world.²⁵ Thus, increased investment in research and strategic actions for mental health in parallel with infectious outbreaks is urgently needed worldwide.¹

Disclosure

The authors report no conflicts of interest.

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