

# Covid-19 shock: Will we have a disorder of the decade?

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### Abstract

A new coronavirus spread rapidly around the world characterizing a pandemic. In times of coronavirus disease 2019 (Covid-19), associated with physical health problems, economic and social problems, there are psychological suffering and psychological disorders. In this context, this theoretical essay aims to present reflections on social isolation, fear of imminent death, and the possible increase in the incidence of anxiety disorders, such as post-traumatic stress disorder (PTSD) and other mental health sequelae resulting from Covid-19. We observed that the pandemic is an important predictor of symptoms of anxiety disorders, as well as initial empirical studies indicated a considerable increase in the number of people with mental disorders resulting from Covid-19. There is a demand for research that explores and presents empirical data regarding the effects of Covid-19 on the mental health of the population, as well as proposing promotion and prevention strategies.

*Keywords:* Covid-19, pandemic, social isolation, death, post-traumatic stress disorder

### O CHOQUE DA COVID-19: TEREMOS UM TRANSTORNO DA DÉCADA?

#### Resumo

Um novo coronavírus se propagou rapidamente por todo o mundo e caracterizou uma epidemia de grandes proporções. Em tempos de Covid-19, associados aos problemas de saúde física, de natureza econômica e social, encontram-se o sofrimento psíquico e os transtornos psicológicos. Nesse contexto, o presente ensaio teórico objetivou apresentar reflexões sobre o isolamento social, o medo da morte iminente e o possível aumento na incidência de transtornos de ansiedade, como o transtorno do estresse pós-traumático (TEPT), e de outras sequelas mentais decorrentes da Covid-19. Observou-se que o contexto pandêmico apresenta importantes aspectos preditores de sintomas de transtornos ansiosos, assim como estudos empíricos iniciais indicaram um considerável aumento no número de pessoas com transtornos mentais associados à Covid-19 e decorrentes dela. Há uma demanda por pesquisas que explorem e apresentem dados empíricos a respeito dos efeitos da Covid-19 sobre a saúde mental da população, bem como que proponham estratégias de promoção e prevenção.

*Palavras-chave:* Covid-19, pandemia, isolamento social, morte, transtornos do estresse pós-traumático

### EL CHOQUE DE LA COVID-19: ¿TENDREMOS UN TRASTORNO DE LA DÉCADA?

#### Resumen

Un nuevo coronavirus se extendió rápidamente por todo el mundo y caracterizó una epidemia de grandes proporciones. En tiempos de Covid-19, asociado a problemas de salud física, económicos y sociales, hay sufrimiento psicológico y trastornos psicológicos. En este contexto, este ensayo teórico tuvo como objetivo presentar reflexiones sobre el aislamiento social, el miedo a la muerte inminente y el posible aumento en la incidencia de trastornos de ansiedad, como el trastorno de estrés postraumático (Tept), y otras secuelas mentales derivadas del Covid-19. Se observó que el contexto pandémico tiene impor-

tantes predictores de síntomas de trastornos de ansiedad, así como estudios empíricos iniciales indicaron un aumento considerable en el número de personas con trastornos mentales asociados al Covid-19 y resultantes del mismo. Existe una demanda de investigación que explore y presente datos empíricos sobre los efectos del Covid-19 en la salud mental de la población, además de proponer estrategias de promoción y prevención.

*Palabras clave:* Covid-19, pandemia, aislamiento social, muerte, trastorno de estrés postraumático

Around December 2019, a new human coronavirus, identified as a severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) or even called Coronavirus Disease (Covid-19), emerged in the city of Wuhan, China, and since then, it has spread rapidly throughout the world, characterizing a pandemic (Ferrari, 2020). With initial symptoms similar to common influenza, Covid-19 infection causes fever, cough, headache, and respiratory failure (Wu & McGoogan, 2020). Covid-19 has been lethal for some individuals, especially those with other diseases, such as hypertension, respiratory diseases, and metabolic syndromes.

In February 2020, China, identified as the epicenter of the disease, already confirmed thousands of cases and initiated quarantine and social isolation measures, closing schools and canceling events and countless other activities considered non-essential (Wu & McGoogan, 2020). The August 2021 report of the World Health Organization (WHO, 2021) indicates that the number of officially confirmed cases of Covid-19 had risen worldwide to 206,693,357, having been reported until that moment 4,352,488 deaths, mainly affecting the United States, India, Brazil, Italy, and France. In Brazil, the number of people infected by the virus exceeded 20 million until the same period, while the number of deaths reached the 570 thousand.

In the meantime, people worldwide had to make an abrupt and forced adaptation to a new situation, marked by a severe collapse of public health and consequent economic and social crises that are probably unprecedented. The need for social isolation became a reality, and, for many, it was necessary to postpone plans and dreams, stop working, go to school, and participating in other social events. The human contact that most people usually had in times of pandemic was restricted to the screens of cell phones, tablets, and computers. Hence, condolences and congratulations, for instance, became virtual. Considering that the last viral pandemic, known as the Spanish flu, dates back to 1918 (Goulart, 2005), more than a century ago, it can be said that the current world population has never experienced a similar situation.

In addition to social isolation, the new coronavirus places human beings in the face of finitude, both their own and the other's. However, it is a fact that death, despite its most diverse possible social representations and apparent banality, is still configured as one of the greatest human taboos, about which it is difficult to refer without sadness. In this sense, Kübler-Ross (1996) points out that the way of seeing death as a taboo is accompanied by the vision of something tragic, which prevents us from seeing it as natural, as well as perpetuates defense processes that manifest themselves from the fear of death, denial, guilt and the feeling of incapacity due to the impossibility of predicting it.

In summary, each individual reacts to grief, social isolation, and a pandemic in a different way, with their emotions, thoughts, and actions varying according to their experiences and abilities to deal positively or not with adversities and losses. However, what about those who already have risk factors for the onset of mental disorders, in this context? Will new mental disorders be identified, or will there be a "reconfiguration" of existing ones?

The World Health Organization (WHO, 2017) considered depression and other common mental disorders, such as anxiety disorders, the evil of the century. Hence, these mental illnesses should be recognized worldwide as a serious public health problem. In this context, we can ask ourselves what might happen to a population that has such high estimates of mental disorders during and after the occurrence of a viral pandemic, specifically the Covid-19 one.

According to a survey about the prevalence of mental disorders in adults carried out by Winkler et al. (2020), the number of people who present symptoms of at least one mental disorder has increased considerably until May 2020, emphasizing cases of anxiety disorders, which almost doubled. In a study produced by Hyland et al. (2020), it was observed that more than one in four people started to present symptoms of anxiety disorder or depression during the stricter lockdown measures in Ireland. In a research carried out with Brazilian undergraduate students, it was found that significantly higher levels of depression, anxiety, and stress during the pandemic period were observed compared to the previous period (Maia & Dias, 2020). All the studies mentioned above point to preliminary results and indicate the urgent need to expand the promotion and prevention of mental health worldwide, as well as point out the demand for new studies that explore specific factors of the pandemic period associated with the emergence/triggering of mental disorders, especially anxiety disorders.

Thus, considering the incipience of studies that investigate and explore the association between the Covid-19 pandemic, social isolation, death, and the onset of mental disorders, this theoretical essay aimed to present reflections on these factors, as well as about the possible increase in the incidence of anxiety disorders, such as post-traumatic stress disorder (PTSD), and other mental sequela resulting from Covid-19. There was no intention to establish conclusions on the subject, but rather to create possibilities for investigation and, especially, to encourage new research in the psychology area on the subject in focus since the impacts of Covid-19 on the mental health of the world population are still little known and analyzed (Quittkat et al., 2020).

### **Social isolation: “staying at home” is no longer a choice**

In the context of the Spanish flu in 1918, health professionals, without any certainty about which strategy to use to combat the “reigning disease”, started to defend, as a central measure, the strict social isolation of patients in order to delay the spread of the disease and reduce mortality rates (Goulart, 2005). In the 21<sup>st</sup> century, more than a hundred years later, despite the great technological and scientific advances available, the world population experienced a similar situation. Social isolation and quarantine are, according to the WHO, the most effective measures to contain the spread of the virus. The sentence “stay at home” has never been so heard and shared. In a press conference held in March 2020, the

director-general of the WHO, Tedros Adhanom, stated that isolation is still the primary combat measure.

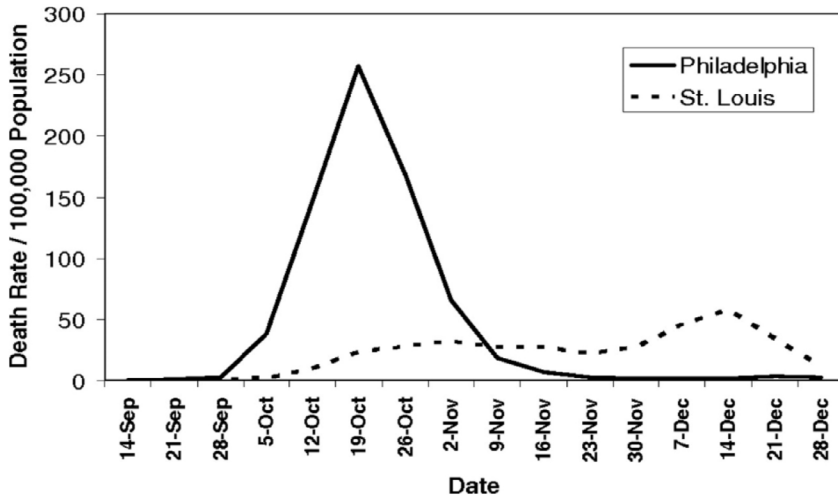
However, social isolation was not a measure equally adopted in different cities and countries, as well as it was not implemented uniformly during the period of the Spanish flu outbreak. In the history of the city of Philadelphia (Barry, 2004), which despite being old it still bears similarities with the current moment of Covid-19 combat. In September 1918, the army leaders, regardless of the cases of infection that occurred among the soldiers and the recommendations of health specialists to avoid the agglomeration of people, carried out a great parade through the streets of the city. Despite the warning and appeals, many people gathered in the center of the city to honor the young soldiers who would leave to go to the battlefield.

The consequences of the event were devastating. Within a week, the virus had killed more than 4,500 people in the city and, in a few months, it had killed more than 100 million worldwide. In contrast, in the city of St. Louis, located more than 1,000 km from Philadelphia, authorities took utterly different measures. As soon as the first cases of Spanish flu were detected, the city was blocked, and strict and austere isolation was imposed. The strategy adopted in St. Louis worked: in total, the city suffered from a population mortality rate that was about half of that of the city of Philadelphia, despite an epidemic that lasted longer. In addition to reducing the total number of deaths, social distancing has alleviated the overcrowding of patients in the health system, spreading them over a more extended period and thus allowing physicians to provide better care (Barry, 2004).

A Spanish study of public health interventions and epidemic intensity during the 1918 influenza pandemic published in 2007 clearly shows how the social isolation imposed on the city of St. Louis flattened the contagion curve, significantly reducing the mortality rate (Hatchett et al., 2007). Figure 1 depicts the contrast of mortality results between Philadelphia and St. Louis, showing how the flattening of the contagion curve, obtained through social isolation, was essential in reducing mortality rates in the pandemic period.

**Figure 1**

The striking contrast in mortality rates between the United States' cities of Philadelphia and St. Louis



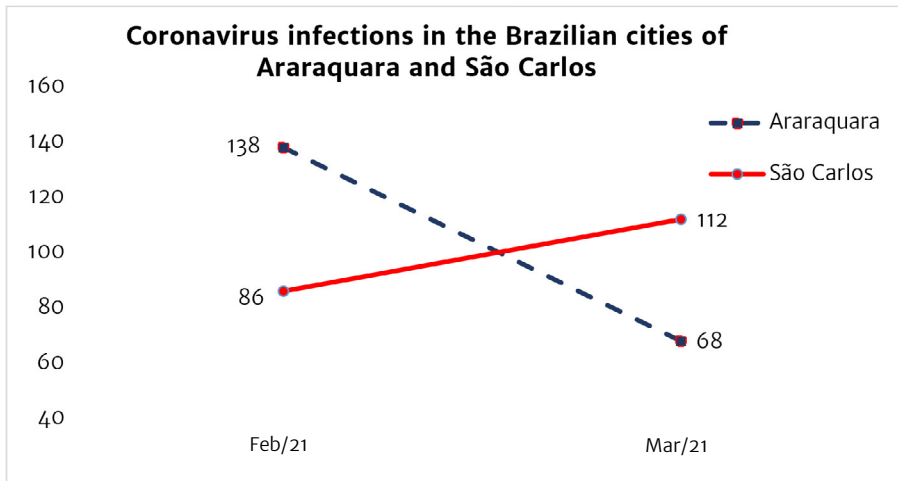
Note. Hatchett et al. (2007).

In the current context of the Covid-19 pandemic, the effectiveness of social isolation measures is again verified. In a study by Kissler et al. (2020), the restrictive measures implemented in cities of China were evaluated and they verified that, at the moment these measures were adopted, the number of cases was higher than 600 per day, while after social isolation, the rate dropped to less than 200. Other studies in different locations worldwide show similar results (e.g., Tomar & Gupta, 2020).

An example similar to the one identified in Hatchett et al. (2007) study on the Spanish flu can be seen in the specific context of Covid-19 in Brazil. According to an article published on the portal of the University of São Paulo, the cities of São Carlos and Araraquara, in the state of São Paulo, which are less than 50 km apart from each other and have a lot of similarities, such as the number of inhabitants, population density, *per capita* income, health conditions, among others, presented a drastic difference in the number of cases of Covid-19 infection, given the different restriction measures adopted. After a period of austere social isolation, Araraquara showed a considerable drop in the number of new daily cases of Covid-19, from 138 in February 2021 to 68 cases in March. Meanwhile, São Carlos, which did not adopt the same restriction measures, showed a considerable increase in the number of new cases, 86 in February 2021 and 112 in March, as shown in Figure 2.

**Figure 2**

*The contrast of coronavirus infections rates between the Brazilian cities of Araraquara and São Carlos*



Even more recent research data already showed that the flexibility of social isolation measures adopted after the temporary reduction in the number of people infected by Covid-19 had a negative impact, again highlighting the importance of social isolation (e.g., Li et al., 2022). In this context, it is noteworthy that both the Spanish flu and the Covid-19 pandemics are clear examples of the effectiveness of spread containment through social isolation to reduce mortality in cases of lethal diseases. From these data, it can be said that there are already precise results of the effectiveness of strict measures of social isolation. However, just as any medication can cause adverse problems, isolation measures can also have significant side effects.

More similarities can be seen by establishing a relationship between the two pandemics, the Spanish flu and the Covid-19. Goulart (2005) states that in 1918 a difficulty that presented itself was not knowing what to do with the infected individuals without symptoms, that is, the “healthy” carrier of the disease, since they were a real threat to other individuals, demanding isolation. Furthermore, the author points out that there were many other difficulties faced during social isolation, such as political, economic, and social problems. We can also mention psychological problems.

The demands for quarantine and extensive social isolation also reveal, according to Goulart (2005), the impossibility of adopting “unnatural” strategies in an urbanized and industrialized society. In other words, “staying at home” implies the closing of factories and schools, the loss of employment bonds, the postponement of plans and goals, and especially the general economic slowdown, which goes against the capitalist and industrial logic.



Among so many and such sudden changes, there are individuals – whether newly unemployed; on the verge of losing their job; those who had to stop working and had lost or reduced income; those who needed to adapt to working from home; children who needed to have remote classes for the first time; or those professionals who did not stop working and, on the contrary, started to work more and more hours in risky conditions, such as the health professionals, hospital cleaners, supermarkets, drivers, street sweepers, among many others. Regardless of age, profession, or any other characteristic, all have been suffering the shock caused by the new coronavirus. In this direction, according to Pietrabissa and Simpson (2020), the consequences for the mental health of the prolonged social isolation required by the pandemic are already visible, and, even by very conservative estimates, they have not yet reached their peak and will probably remain after the current pandemic.

Social distancing then starts to cause a wide range of thoughts, fears, and, especially, uncertainties about the other, tomorrow, and the time needed to return to the former apparent homeostasis. In this context, psychological disorders, such as anxiety, panic, symptoms of obsessive-compulsive disorders, depressive symptoms and post-traumatic stress, and physical symptoms arising from these, such as insomnia and digestive problems, may emerge (Rogers et al., 2020). The emergence of mental disorders during periods of social isolation results in part, according to Pietrabissa and Simpson (2020), from the suppression of natural channels of human expression and pleasure, which causes concomitant impacts on mood and subjective well-being. An alarming and very clear picture is pointed out by Brooks et al. (2020). According to the authors, periods of social isolation, even less than ten consecutive days, can have long-term effects, with the presence of psychiatric symptoms up to three years later.

Therefore, in current times, waiting for tomorrow, when everything goes back to “normal”, whether regarding school, work, or social events, implies the desire to advance the time, which is impossible and causes much anguish and anxiety. Another important cause of suffering, anxiety, and stress in times of pandemic is the fear of death, which is currently no longer restricted to those who live in violent cities, have serious illnesses, are old, or perform risky activities. During a viral pandemic, everyone is in a vulnerable situation, just by having contact with anyone else.

### **The fear of death**

Since the beginning of humanity, the awareness of mortality has represented an existential threat to human beings, as death contrasts with the innate survival instinct that living beings have (Barret, 2013; Nascimento & Roazzi, 2002, 2007, 2008; Nascimento et al., 2021; Roazzi et al., 2009; Solomon et al., 2015). With the rise of Covid-19, this atavistic fear of human beings of death became more potent due to its greater probability of happening, dismantling the defenses that human beings have built over time against it and that prevent

them from reaching a fundamental understanding of the meaning of life itself with death (Lee et al., 2020; Pyszczynski et al., 2020; Yildirim & Güler, 2021).

The sophisticated system of distractions, the founding base of the consumer society that allows thinking as quickly as possible, numbing a clearer understanding of reality, no longer holds. Human beings were forced to stop, unexpectedly bumping into a crossroads that caused them to rethink and reflect on their way of life, ethical issues, values, among others. Reflecting, in this context, implies the need to ask a series of questions and seek answers that help to support the situation imposed by the pandemic. For example: What made us experience this situation? Are we doing everything possible and correct to deal with it? Are there alternative strategies to improve the situation? What can we do that is useful besides staying at home and respecting the rules? What can we change in our lifestyle habits to avoid similar situations in the future and limit the damage of the current crisis?

The questions are many, and the answers must be sought from a serious reflection, avoiding false messages and looking for keys to reading the situation that can make sense of what is happening and create a fertile ground for a dialogue that restores trust between citizens, science, and information. In fact, despite technological and scientific advances in recent decades, with significant improvements in the health area, the scant information we have about this new virus allows us to understand that we know little about it. We are facing something unknown, unpredictable, and dangerous, and communication becomes an essential element capable of influencing people both negatively and positively due to the implicit risk factors to physical and mental health and the fear of death.

Thus, in addition to the various health risk factors, death becomes a central issue in times of pandemics in the most diverse media. Currently, websites, blogs, television, radio, and the most different social networks on the internet incessantly inform millions of isolated people about cases of infection and deaths caused by Covid-19.

Individuals are faced with the number of fatal victims, which is in constant increase. If, on the one hand, there is a representation of mocked/banalized death, on the other, there is a silenced death, in the sense brought by Campos (2013), since, sometimes, individuals' deaths are reduced to statistical data, and, sometimes, people deal with death as a mystified topic, with successive attempts to exclude the problem.

Salztrager (2016) points out that death represents a break with everything constituted and known, especially the concept of security or maintenance of the state of affairs, that is, life. Thus, it is a phenomenon that is difficult to handle. In this sense, people seek to "confine" death in hospitals and health institutions, which, according to Campos (2013), start to gain connotations of affective isolation and denial. The author also highlights the possibility of trivializing the phenomenon of death, fostered by the constant bombardment of news through the media, which initially creates discomfort, but later seems to no longer affect people.

In the silenced death, there is a denial of its existence, as talking or thinking about it may cause a load of anguish. However, in a context of pandemic, it becomes more difficult to silence death and not experience the most varied types of mourning, not only restricted to the death of the body itself, but also to mourning the loss of a job, routine, social life, among others. Thus, in addition to experiencing grief for the losses that have already happened, individuals in a situation of social isolation may suffer especially from anxiety and fear of future damages.

According to Pietrabissa and Simpson (2020), the devastating impact of concerns related to economic problems is added to the loss of loved ones, which, despite being painful in any context, in the pandemic period is even worse. The authors emphasize that during the pandemic, we are forced to deal with death in ways that are alien to human civilization, ranging from the idea of not being able to be with the deceased in their last moments of life to the feeling of guilt due to the idea of having infected the person inadvertently. These factors have a meaningful impact on the mental health of individuals, amplifying the pain of death and increasing the rates of depression, anxiety, consumption of alcohol, drugs, and risk behaviors. In the study by Murata et al. (2021), it was found that common issues of a pandemic context, such as the fear of contracting Covid-19, legal and financial problems, and especially the fear of illness or death of a loved person (in 48% of cases), are some of the main aspects that predict symptoms of anxiety disorders, such as PTSD.

This is the situation of thousands of people worldwide in the context of the pandemic: experiencing the anxiety of being constantly at risk and uncertain about the future. In this context, changes in daily life, the feeling of loneliness, job loss, financial difficulties, and grieving the death of loved ones can potentially affect the mental health of many (Pietrabissa & Simpson, 2020). The continuity of one's own life and that of family and friends is at imminent risk. Activities that were once common, such as leaving the house, meeting people, and touching objects, may now cause a lethal infection. All of these factors may cause the development of mental disorders, especially the anxiety ones, which, according to the *Diagnostic and statistical manual of mental disorders: DSM-5* of the American Psychiatric Association (APA, 2014), may have their etiology associated with environmental and psychosocial factors. In this sense, in the face of an extremely specific and atypical reality, can we speak not of an evil of the century, as the WHO claimed when referring to depression, but of specific evils of the 2020s?

### **Times of coronaviruses and mental disorders**

A pandemic can be experienced in different ways by individuals; however, the effects of Covid-19 certainly affect everyone, even if in different scopes and proportions. The loss of close people, lack of money, distance from loved ones, break of routines, and fear of infection and death, both of themselves and others, among other problems, have become a reality for millions of people who process these pains in their own way.

However, the great issue that arises is:

- Do certain people, either due to further problems or because they are already in conditions of vulnerability to the development of mental disorders, such as the existence of another previous disorder, family history of mental illnesses, difficulties in accessing health services, among others, may, after the pandemic “revisit” these pains experienced.

In this context, considering the predominantly environmental etiology of PTSD, as well as a remarkable and potentially traumatic historical moment such as the one experienced by the world population amid the Covid-19 pandemic, it is possible to wonder the expected increase in the number of individuals affected by this disorder.

PTSD is an anxiety disorder that affects individuals worldwide and has adverse effects on quality of life. It is more prevalent in females, poorest individuals, and those who develop risky professional activities. According to the *DSM-5* (APA, 2014), PTSD is a reaction to a stressful, exceptionally threatening or catastrophic event that appears immediately after a traumatic event or after a short latency period and can be developed both in the victims of the situation and people close to them or those who provided help. Thus, attention should be paid to patients and family members affected by the new coronavirus and, in particular, to health professionals on the front line in the fight against Covid-19. This last category, composed mainly of physicians and nurses, is the most exposed to the development of PTSD since they are professionals who are go through a great load of stress that makes them more vulnerable, even regarding the immune system.

Thus, we can establish an analogy between the pandemic and war since having the right to come and go restricted and constantly fearing disease and death is very similar to the scenario experienced in periods of war. In the case of the pandemic, it is a silent war against an invisible enemy. Thus, much has been said about “fighting”, “front lines”, “campaign hospitals”, and “combat”, given the efforts used to fight the virus and contain the spread. About 6.8% of the world’s population were affected by PTSD in periods without a pandemic (Kessler et al., 2005). However, according to Elliott et al. (2015), PTSD is one of the mental pathologies that most affect individuals in the context of war, reaching up to 20% of veterans. Following the analogy, can we also expect the impairment of such a great number of people in the context of Covid-19? Are we facing one of the diseases of the decade?

As for these questions, there are no definitive answers, considering that there are still few studies that have evaluated the relationship between the pandemic and PTSD (e.g., Blekas et al., 2020; Liu et al., 2020). However, it is a fact that the scenario of pandemic causes people experiences of exposure to stressors, changes in the usual social structure, and much anxiety. Recalling the analogy with war, according to Lawson (2014), the exponential number of patients and deaths increases individual’s vulnerabilities to the emergence of future illnesses,

both physical and psychological. In this sense, we raise a hypothesis about the possible favoring of the development of anxiety disorders, such as PTSD, in times of pandemic.

The few and recent prevalence studies available already indicate that predictors of PTSD symptoms are more commonly identified in the current pandemic period, such as trauma associated with illness, death of loved ones, or fear of social exposure (e.g., Blekas et al., 2020; Murata et al., 2021). According to Murata et al. (2021), adolescents are especially more likely to develop PTSD, as the number of adolescents with this disorder increased by 45% in 2020, and young people tend to be the ones who suffer most with the lack of social contact and perceived stress. However, adults also showed more symptoms associated with PTSD. According to Liu et al. (2020), from a sample of 898 adults from the United Kingdom aged between 18 and 30 years, 31.8% had high levels of PTSD symptoms.

Regarding trauma, we can understand it, as defined by Caruth (1996), as a severe damage that the victim initially seems to overcome but later reappears in the form of symptoms, sometimes difficult to directly associate with the harmful event. Considering the Covid-19 pandemic a possibly traumatic event, we can reflect on the collective trauma, a complex phenomenon involving sociocultural aspects, public health policies, among others.

Although the concept of collective trauma is still imprecise, Sylla (2015) states that there is an important aspect that justifies a clear distinction between individual traumas and collective traumas, this being the aspect of therapy, since, according to the author, knowing that there are many other people who have suffered from the same trauma can be determinative in the healing process. We also emphasize here that this aspect can be relevant in establishing faster and more accurate diagnoses and developing therapeutic treatment strategies.

With regard to PTSD, according to the *DSM-5*, this disorder is characterized by intrusive, distressing, and involuntary memories of the traumatic event; dissociative reactions; intense psychological suffering and reactions to internal or external signs that symbolize or resemble any aspect of the traumatic event; efforts to avoid persistent and exaggerated memories; negative beliefs or expectations about oneself, others and the world; distorted cognitions; negative emotional state; feelings of distance and alienation from others; exacerbated responses; disturbances of sleep; hypervigilance and hypersensitivity, among others (APA, 2014). In addition to psychological symptoms, PTSD is associated with an increased risk of developing other pathologies, such as hypertension and cardiovascular disease.

In this context, the typical PTSD revival in Covid-19 may include symptoms such as constant fear of death, social avoidance, exaggerated personal hygiene habits, nightmares about infection, among others. In addition to the suffering associated with PTSD's symptoms, the disorder is one of the primary triggers of suicidal behavior (LeBouthillier et al., 2015), so that it deserves special attention.

Considering the severity of PTSD symptoms and the resulting psychological distress, professional monitoring of individuals with this disorder related to trauma and stress is

necessary (APA, 2014). The good news is that, despite the increase in the number and severity of PTSD cases during the pandemic (e.g., Blekas et al., 2020; Liu et al., 2020), psychotherapeutic and psychosocial interventions can be effective in the prevention and treatment. Thus, Soares and Lima (2003) point out that not all individuals submitted to major traumas will develop PTSD, which may be related to an individual response to the stressor or to a unique predisposition of that individual. For these authors, as the disorder always occurs after an important traumatic event (psychological trauma), there is a possibility of preventing the development of PTSD; however, there are still no clear indicators of the effectiveness of preventive strategies.

Preventive interventions can be 1. psychological debriefing, a brief intervention in a single session that consists of discussing the stressful event and the associated psychological reactions; 2. counseling, centered on adaptive measures; and 3. cognitive behavior therapy (CBT), including imaginary exposure, real exposure, cognitive therapy, and imagery therapy. As for the treatment of PTSD, interventions based on affective management, psychodynamic psychotherapy, relaxation techniques, cognitive behavioral therapy, and eye movement desensitization and reprocessing (EMDR) (Soares & Lima, 2003) are indicated. EMDR, for example, is one of the most used treatments nowadays. Through flexible, effective, and brief protocols, it allows access to deep memories of more significant emotional impact, gradually making them more conscious and less anxiogenic. The treatment based on EMDR helps to reframe the memories, reduce their negative emotional impact, and, consequently, stop generating more anxiety or fear, making the patient stronger and more able to face problems.

Pharmacological interventions can also be undertaken, with selective serotonin reuptake inhibitors antidepressants, tricyclic antidepressants, and sedative drugs, such as benzodiazepines and antipsychotics, the most used (Soares & Lima, 2003). We emphasize that pharmacological interventions only need to be used in very particular cases, if recommended by a competent professional. For example, if the patient has anxieties or phobias with a depressive history, it may be efficient to associate a selective serotonin reuptake inhibitor antidepressant with non-pharmacological treatments. The association between psychotherapy and drug can also be helpful, especially for patients with sleep disorders, as they need to stabilize their sleep/wake cycle, which can cause problems, such as worsening mood and PTSD symptoms when altered.

Besides PTSD, other anxiety and mood disorders, depression, and disorders related to alcohol use can also be triggered in the pandemic period, as some recent empirical research already points out (e.g., Hyland et al., 2020; Maia & Dias, 2020, Winkler et al., 2020). Furthermore, an even more recent study produced by Taquet et al. (2021) reveals that among people who have already been infected by the coronavirus, 34% receive a diagnosis of mental or neurological illness within six months of the disease. In other words, in addition to disorders related to typical factors of the pandemic period, such as social isolation and fear of death,

there are those directly associated with the disease caused by the virus, which can be identified as sequelae. Among the patients analyzed in the study, the most common mental disorders were anxiety, such as PTSD, present in 17% of the people evaluated. Anxiety disorders, mood disorders and abuse of controlled substances were also evident but at lower rates.

In summary, it is necessary to reflect on this issue and develop strategies aimed at promoting mental health and preventing anxiety and stress disorders, especially for individuals who are in more vulnerable situations, such as those with low socioeconomic status, difficult access to health services, those who have worked at hospitals and essential services, those who already had mental disorders, among others. It is also important to highlight that the individuals' level of social integration (for example, having friends or a supportive family) is a protective factor against the onset of psychological distress and a possible facilitator in facing it. Furthermore, as indicated in the study by Taquet et al. (2021), it is necessary that we also pay attention to the study of the mental health sequelae caused by the disease and the ways to prevent them.

### **Final considerations: Thinking about the near future**

A new coronavirus has crossed species and infected human populations for the third time in many decades, infiltrating people's lives in an increasingly disturbing way, distorting them completely, altering behavior patterns, and becoming, for some, a real trauma. The lockdown or severe social distancing, confinement, and restrictions on the population's movement in public places drastically altered the ethological paradigm according to which individuals only survive being close to each other. It is now understood that, given this new situation, only by staying far away it will be possible to defeat Covid-19, envisioning the flattening of the curve of infected people and deaths, reducing the flow of patients at hospitals and preventing the health system from going into a complete meltdown.

Suddenly and abruptly, human beings were prevented from interacting through all those culturally usual gestures of everyday life (such as handshaking, hugging, kissing, and touching). They will have to relearn how to do this after this period, even if with some difficulty. Thus, given this new phase of life, human beings, at the same time that they were led to change their way of expressing themselves, probably learned to value looks and focus on the expressiveness of the face, as the way of communicating, being in the world, expressing emotions, among others, has changed. It is the first time that this has happened so explicitly and on a global scale in recent human history.

Faced with this new reality, a network of researchers and specialists has been working to coordinate studies on surveillance, epidemiology, modeling, diagnosis, clinical care and treatment, and other forms of identification, management, and prevention of the disease (WHO, 2021). Wu and McGoogan (2020) argue that proactive investments in health infrastructure and professional training are crucial to effectively respond to Covid-19, and it is

essential to continue improving international surveillance, coordination, and communication about the outbreak, actively preparing for the occurrence of new public health problems.

In this context, given the pandemic that has caused several significant and possibly traumatic changes in the daily lives of the population, mental health professionals must also be actively preparing for the post-pandemic period, reflecting especially on the effects of a long time of social isolation, the mourning for the losses experienced, and all the resulting stress and anxiety. Furthermore, it is necessary that these professionals also pay attention to the mental health sequelae, still little studied but already recognized, of the disease. In this sense, this study proposed to present a brief discussion on the phenomena of social isolation, death, and the onset of mental disorders in times of Covid-19, presenting the hypothesis, already partially confirmed by preliminary empirical studies, of increased incidence of anxiety disorders, such as PTSD, and other mental health sequelae as the possible specific evil of the decade beginning in 2020.

Considering the existence of strategies that can prevent, in some cases, the onset of mental disorders, there is an urgent need to develop comprehensive interventions for the promotion and prevention of mental health. According to Leandro-França and Murta (2014), the promotion focuses on developing skills and resources to face individual and environmental vulnerabilities, while prevention aims to reduce the risks of problems or disorders, evaluated according to the levels of risk exposure. Taking the concept of prevention in mental health as a reference, we can think of universal, selective, and indicated interventions. Thus, it is necessary to develop universal actions, aimed at the entire population, without specific targets; selective interventions, aimed at people in conditions of greater vulnerability, but still asymptomatic; and indicated prevention, that is, centered on individuals who present initial signs or symptoms of a disorder, but without a defined diagnosis (Leandro-França & Murta, 2014).

Thus, it is considered urgent to reflect on the harmful effects of Covid-19 on the mental health of individuals, as well as the development of interventional strategies that mainly encompass the most vulnerable people. Future research in psychology and psychiatry that explores and presents empirical data on the effects of Covid-19 on the population's mental health and specific intervention possibilities is crucial in the face of this new reality.



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