



## Mini-Review

# Posttraumatic stress disorder concerning the end of the covid-19 lockdown: A mini review

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## Abstract

Posttraumatic Stress Disorder (PTSD) occurs generally two months after an acute stress. We challenge the opportunity to observe an increase of PTSD after the end of the confinement induced by the pandemic of covid-19. PTSD can develop in response to exposure to an extremely stressful or traumatic event, or an exceptionally threatening situation. Examples include rape, violent attack, severe accidents, sudden destruction of home or community, or harm to close relatives or friends, but as well after confinement. The present paper tries to prevent from the consequences of fear of pandemic and confinement.

## What is post-traumatic stress disorder?

When a person is confronted with a serious, disturbing, intense, out of the ordinary event, which has damaged or could have damaged physical integrity or caused serious injuries which could lead to death (accident, fire, war, physical or sexual assault, witness to murder, sudden death of a loved one, etc.), it can manifest acute physical and / or psychological reactions for a few days in response to the enormous stress suffered. These reactions are considered normal for some time. However, when they last longer than four weeks, this is called Post-Traumatic Stress Disorder (PTSD) [1].

This disorder is characterized by fear of great intensity accompanied by a feeling of hopelessness or horror (disorganization or restlessness in children). The person constantly relives the traumatic event and avoids situations that remind him of it. PTSD is also accompanied by a decrease in emotional reactions as well as multiple anxiety reactions. About 9% of the population will develop this disorder in their lifetime [2]. Rates are higher in areas of the world where there is conflict. Women are twice as likely as men to have PTSD, which can also develop when someone else witnesses it or even learns that a member of family or a loved one has been the victim. Depression accompanies the disorder in 30 to 80% of

cases. Other disorders can develop as a result of trauma, such as substance abuse (alcohol and drugs), as well as other anxiety disorders. Generalized anxiety is also known to aggravate physical health problems. In children, specific symptoms may appear: emotions may be more difficult to express and can be seen in disorganized or agitated behavior. There may be repetitive games related to event themes or nightmares with no recognizable content. The child may also seek to reconstruct the situation in a specific way. Finally, sexual assault does not have to be violent to be traumatic. Any inappropriate sexual experience at the developmental stage can cause PTSD.

## Warning signs

When symptoms are present for more than a month, cause difficulties in functioning normally at a social, professional or other important level, or cause significant suffering, it may be a PTSD. However, traumatic events do not cause PTSD in everyone who experiences them. Certain factors could lead to vulnerability to developing the disorder: having a biological fragility, having been the victim of physical or sexual abuse in the past, suffering from other mental health disorders [3], having had behavioral problems during childhood or adolescence or being subjected to chronic stressors.



## Symptoms

Symptoms of PTSD can appear soon after the event or be delayed and resurface much later (new stress or an anniversary, for example, can awaken memories of a previous trauma). Symptoms fall into three main categories [4].

### *Traumatic event relived persistently* [5],

- Memories (images, thoughts, perceptions) of the event that resurface at any time;
- Repetitive nightmares;
- Feeling that the situation will happen again or sudden conviction to relive the event;
- Illusions, sudden reminiscences (“flashbacks”) which can last from a few hours to a few days;
- Great distress and physiological reactivity in the presence of elements reminiscent of trauma.

### *Avoidance of stimuli associated with dull general reactions* [6],

- Avoidance of anything reminiscent of the trauma and efforts to flee the thoughts, emotions, conversations, activities, places or people associated with the event; inability to remember an important aspect of the event;
- Marked loss of interest or decreased participation in activities that were important to the person before the trauma;
- Feeling like you are in a fog;
- Feeling of being detached from others;
- Difficulty feeling certain feelings;
- Loss of hope for projects that once held dear.

### *Neuro-vegetative activation symptoms* [7],

- Sleep problems;
- Irritability;
- Anger;
- Difficulty concentrating;
- Hypervigilance;
- Exaggerated startle reactions. The intensity and duration of the disorder varies from one individual to another and it is not necessary to have all the symptoms of each category mentioned above to receive the diagnosis.

## PTSD and lockdown induced by covid-19 epidemic

What to expect when you ask the people of an entire country to stay at home two weeks, a month or more? What will be the effects on his mind, on his social behavior? And what pathologies could appear? While 4.5 billion people are

now confined to the world, to limit the spread of Covid-19 [8], it is interesting to study the psychic effects of the lockdown.

First of all, we can base ourselves on a national survey which was carried out in China, during confinement, on the general population, in the 36 provinces: it has just appeared, from 52,730 responses, on a self-questionnaire online. We had to validate the frequency of anxiety, depression, physical symptoms. We know that 35% of respondents presented moderate psychological stress and there are 5.14% who have severe psychological stress [9].

Women exhibited a higher level of distress. Otherwise, among the most affected: individuals between 18 and 30 years old, and those over 60 years old. Migrant workers have also been greatly affected. And the stress level is higher in the centers of the epidemic: in France, one could imagine a similar effect in the most affected areas, for example in Mulhouse where the epidemic was the most severe. Then, there is a summary note, published on March 14, 2020 in the journal *The Lancet* [10], on the psychological impact of confinement. It was carried out from 24 studies, in ten different countries: it includes studies around Sar, Ebola, H1N1. We learn that stress during the confinement phase will depend, first of all, on its duration. A confinement period of more than ten days, all studies combined, is predictive of post-traumatic syndrome [11]. In a few words, it means that it will generate long-term stress, anxiety, insomnia, we feel unable to do anything.

Confinement will wake up other traumas. I have heard testimony from women who recount having relived in the announcement of confinement the announcement of their cancer: fragile people are sometimes those who have experienced other traumas. During confinement, there is also an increased fear for pregnant women and their entourage [12]: they are afraid of being infected and of transmitting the virus. The same goes for women who have young children, babies a few months old. In the other factors that promote stress, there is also boredom: I have nothing to occupy myself, I turn on a vacuum, so I let myself be worried. We are talking about the difficulties of teleworking, but it is also a problem for people who have no activity, the unemployed, the retired ... hence probably the most affected age groups.

The psychological consequences are numerous and must be anticipated. Mental health care will be necessary for some, with psychiatrists, but also social aid, logistical aid, during and after confinement. What to expect when you ask the people of an entire country to stay at home for two weeks, a month or more? What will be the effects on his mind, on his social behavior? And what pathologies could appear?

Having dependent children is an aggravating factor of stress. Parenting must be supported at this time. The parent is responsible for a mission in relation to his children: he must reassure him, explain the situation to him, so that the youngest are not afraid. Afterwards, the child must do his school homework, so the parent must take care of the teaching. And when the additional parent has to work, this results in a triple function in the same day, without counting the errands



to be done. We will also have to support couples: couples work because there is air from time to time. But with containment, there is no more air, conflicts can arise. Help should be sought from all marriage counselors, etc. Indeed, the confinement situation itself creates its own troubles. Anxiety will create side effects: bulimia, excessive sugar consumption ... and therefore another side effect which is weight gain, which can still create after cardiovascular problems. These are cascading side effects.

In China, authorities have set up a support system, with trained volunteers to help others by phone. It is not strictly speaking psychological help, but rather psychosocial: it is necessary to look at the logistical questions, the relations between the employee and the employer ... It is necessary a support of proximity which must not be intrusive, because the situation is difficult. But it is not people who have a psychological problem properly speaking: it is the situation which creates a disturbance. It was also quickly noticed that parents found it difficult to manage education. So the authorities quickly bet on TV channels, with educational programs every morning: parents were told that they could put their child for two hours in front of the television, and adults could then rest, do their telework ... In general, special attention should be paid to vulnerable groups, with the provision of support services, which are practically the same as in situations of major disaster. China used tools that were used during the Wenchuan earthquake in 2008 and the H1N1 epidemic in 2009: treat this epidemic as a major disaster, and deploy targeted interventions to reduce stress [13].

Studies show that there are sources of stress after confinement, precisely. The first stressful thing is the economic situation: who has lost income? These days, I have had feedback from people who were going to get a job: suddenly, opposite, we tell them that we are stopping the recruitment process, since we don't know where we're going. People in economic transition, or precarious workers, will be put in difficulty. It is also very difficult for students, at the end of their university studies, in the professionalization phase. This economic stress will also weigh on the managers of small and medium-sized businesses, especially in the personal service sector: these are functions that cannot necessarily be sold remotely, how will they do it financially? And even in people who are professionally stable, it will be difficult to return to work: there will be a reorganization of existential values. It is common after disasters: Is this job really so essential? And as in the post-war period, there may be a release valve after confinement, with increased risk-taking and escape behaviors. That is why we must support the population day after day, since we know that this is a difficult situation. Mental health care will be necessary for some, with psychiatrists, but also social aid, logistical aid, during and after confinement.

## Treatments

After a traumatic event, the following hours are very important: do not stay alone (it is time to enjoy our friendships, our families), regroup with other people with similar experience, avoid in the case mass disaster of listening to television news over and over again (this is even more true

for children: according to some observations, children, even far from the event, may develop symptoms of PTSD at the sight of catastrophic images) [14], ensure adequate sleep and avoid voluntary poisoning (alcohol causes the illusion of good sleep, but disrupts normal phases of sleep.

Receiving support quickly, within 24 to 72 hours of the event, can help prevent further development of PTSD in many people [15]. On the other hand, it is better not to insist or put pressure to make the person speak: being available when needed is enough. Verbalization is not effective for everyone and in some cases, it allows the installation of symptoms by reliving the event "by force".

Among the approaches proposed in psychotherapy, the cognitive-behavioral type centered on trauma is one of those which is particularly recognized for treating PTSD [16]. A frequently used technique is to gradually expose the person to event-related elements by first imagining scenes related to the trauma until the anxiety subsides. She is thus taken to confront her emotions instead of running away from them. Cognitive restructuring is also commonly used in this type of therapy. This involves identifying and modifying problematic thoughts related to the event, such as those that cause feelings of guilt or responsibility.

Another increasingly recognized technique is EMDR (Eye Movement Desensitization and Reprocessing) [17]. After a complete assessment, the therapist leads the patient to verbalize a negative thought related to the traumatic situation and to find a positive outcome. We identify the emotion in question and the level of distress, then, the patient imagines "the worst image" related to the trauma and is invited at the same time to make lateral movements with the eyes (following the fingers of the therapist, for example ) until the distress associated with this image decreases. Eye movement would aid the integration of information into memory.

Certain medications, such as antidepressants, may be prescribed during the medical follow-up to relieve symptoms [18]. Propranolol would be effective, but in the very first hours after the trauma (research is underway into its use later in the course of the disease) [19]. Benzodiazepines are to be used with great caution: they can lead to overuse, dependence and disinhibition in times of danger [20]. Some preliminary observations also suggest that these substances could promote the onset of post-traumatic stress disorder.

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