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Commentary

Quarantine, Brain, and Health

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COMMENTARY

Since Herophilus of Chalcedon (a.335) studied the brain and considered it the center of the nervous system, all the cognitive, psychological, emotional, and individual behavior processes of the human being have been linked to the brain, which has developed until our days the current neuropsychology. This helps us to explain the changes in the neurological functioning of our brain in situations such as social isolation and sensory deprivation.

What happens to your brain and body when you are in quarantine and how to deal with it?

During quarantine, some people work from home when they normally travel to their jobs, and others practice social distancing to avoid contracting the virus. Although these practices may be indispensable to the main purpose of the pandemic and save lives, they can nevertheless have negative and, in some cases, severe physical and mental effects.

You are likely to be in an unpleasant, irascible, sad state, anxious, etc., after a period of social isolation, as humans thrive and survive thanks to social interaction. We not only like to interact, but our brain needs it, and if this does not happen, then it gets sick in different ways and degrees [1].

In fact, people with weaker social relationships are 50% more likely to die in a given period than those with stronger connections, (according to a 2015 meta-analysis that included more than 308,000 people) [2].

In other words, being alone equates 15 cigarettes a day in mortality. This is why depriving yourself of social connections, even temporarily, does not feel good. Your body is trying to tell you to relate and mix with people so that, in the long term, you stay alive.

Furthermore, loneliness and social isolation have been seen as risk factors for coronary heart disease and stroke [3]. If we think of loneliness as an adaptive response like hunger and thirst, it is this unpleasant state that motivates us to search for social connections just as hunger motivates us to search for food, according to Julianne Holt-Lunstad, professor of psychology and neuroscience at Brigham Young University in Utah (United States). [4] Of course, in a situation like a pandemic that requires you to reduce or eliminate your face-to-face contact, you need to endure that discomfort to avoid much more dangerous immediate and long-term effects. It has always been known that the effects of decreased physical activity can also affect our minds.

Whether you're confined to a room because you've been exposed to the virus, or are simply working from home because your office now requires it, this reduction in physical activity can seriously affect your brain (intellectually and emotionally).

Take the example of professional athletes. They may experience anxiety, aggressiveness and other symptoms when injured, largely because they no longer have the coping mechanism that may have kept these feelings at bay. This can manifest as sadness, irritation, frustration, anger, and other uncomfortable emotions. In addition to the usual muscular atrophy due to physical inactivity, which begins from the second week.

"Use it or lose it" is a cliche for one simple reason: It is true.

A study in the Journal of Applied Physiology suggests that just two weeks of inactivity can begin to lose muscle in your heart and skeletal muscle mass. Inactivity is associated with weight gain, obesity, insulin resistance, type 2 diabetes, and cardiovascular disease [5].

Another study found that obese adults who exercised for four months and then took a month of rest lost most of the improvements achieved in their aerobic capacity, insulin sensitivity, and cholesterol levels. [6] The effects of quarantine can also be psychologically damaging in the long term.

According to research published last week in the prestigious medical journal The Lancet that included 24 previous studies on the psychological effects of quarantines during disease outbreaks, the experience can lead to symptoms of post-traumatic stress, depression, confusion, anger, fear and substance abuse. The most vulnerable people, according to the study authors, are those who have or have had mental health problems. Obviously, the severity of the effects depends on your situation, cultural level, personality, and history. [7]

People who experience coronavirus symptoms and are quarantined

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in their rooms or enclosed spaces, in all likelihood, will fare worse than those who feel good and want to have fun. How a person is affected by a period of social isolation, or simply for reduced interactions, will also depend on your personality. If he is very extroverted, who thrives on social contact, the experience will be harder than if he is an introvert who feels wonderfully comfortable curled up on a sofa with a book.

Prepare physically

To physically prepare yourself against the negative effects of quarantine, consider a training plan at home.

All you need is your body to do push-ups, squats, sit-ups, etc. A chair can also serve as a bench for triceps exercises. If you have a foam roller, mat, or resistance band, you can incorporate even more variety into your home exercise plan. For example, using the band to create tension and increase power.

Stock up on some healthy and versatile staples, too, to help avoid feeling too slow. And maintain a very good hydration. Vitamin D supplements may be necessary in the absence of sun exposure in some cases. Eat packaged vegetables, frozen or not, fish, grains like rice and pasta, and try some simple but nutrient-rich recipes like pasta salads and chilies. Of course, avoiding alcohol consumption and self-medication, since, and especially in these circumstances, it can disastrously affect coexistence and make you feel emotions that are not real and/or exaggerate others.

Furthermore, above all, Maintain a Routine.

Maintain social contact

To cope mentally and emotionally with quarantine or reduced social contact, contact others virtually. Thanks to the development of telecommunications, quarantining today is less socially tense than it was just a decade ago. Tools like Face Time, Facebook, Skype and other social networks can help alleviate some of those unpleasant short-term responses and help us feel and maintain those connections without potentially putting us at risk of being exposed to the virus.

It is recommended to be proactive when approaching others and asking how they are doing, it will improve their mental health and theirs, as they will at least experience the perception of support, which can reduce stress. The positive side of something like reducing contact with the outside world is the ability to slow down and connect with the people closest to us.

The brain lives on stimuli

The brain is in continuous operation receiving and perceiving a multitude of simultaneous stimuli that keep it active. In the absence of certain senses, the areas of the brain destined for that sense are released, hyperactive, and make us feel things that are not real (as happens with the lack of a member, phantom limb, which although it is not, the area of the brain that registered it and it hyper functions producing not only the sensation of still having the limb but pain and discomfort in it). We may even have hallucinations or delusions (visual, auditory, etc.) in the absence of real stimuli. All this only in extreme cases of isolation.

CONCLUSION

Finally, when there are people who still express love and support in various ways, they can make those periods of confinement more bearable.

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