



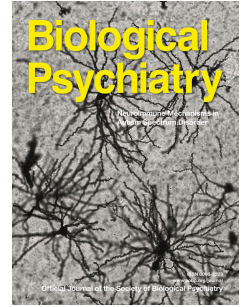
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

# Journal Pre-proof

Lessons learned from the coronavirus health crisis in Madrid, Spain: How COVID-19 has changed our lives in the last two weeks

Celso Arango, MD, PhD



PII: S0006-3223(20)31493-1

DOI: <https://doi.org/10.1016/j.biopsych.2020.04.003>

Reference: BPS 14180

To appear in: *Biological Psychiatry*

Received Date: 4 April 2020

Accepted Date: 6 April 2020

Please cite this article as: Arango C., Lessons learned from the coronavirus health crisis in Madrid, Spain: How COVID-19 has changed our lives in the last two weeks, *Biological Psychiatry* (2020), doi: <https://doi.org/10.1016/j.biopsych.2020.04.003>.

This is a PDF file of an article that has undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability, but it is not yet the definitive version of record. This version will undergo additional copyediting, typesetting and review before it is published in its final form, but we are providing this version to give early visibility of the article. Please note that, during the production process, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

© 2020 Published by Elsevier Inc on behalf of Society of Biological Psychiatry.

**Lessons learned from the coronavirus health crisis in Madrid, Spain: How COVID-19 has changed our lives in the last two weeks.**

Celso Arango, MD, PhD.

Journal Pre-proof

Department of Child and Adolescent Psychiatry, Institute of Psychiatry and Mental Health Hospital, General Universitario Gregorio Marañón, IISGM, School of Medicine, Universidad Complutense de Madrid, CIBERSAM, Madrid, Spain.  
[carango@hggm.es](mailto:carango@hggm.es)

As I write this letter on April 2, 2020, Spain is the country with the world's second highest number of COVID-19 deaths, a figure that now exceeds 10,000 here, accounting for over 20% of world's total death toll from this disease. In what just a few weeks ago used to be some of Europe's liveliest cities — Madrid and Barcelona — the streets are empty, something that did not happen even during the Spanish Civil War. The total number of deaths in my city of Madrid alone is over 4,000 and the number of intensive care units has increased sevenfold. In normal times, my hospital had 20 ICU beds and the number as of today is 116. Despite that, the factor that has proven key for mortality rates, the number of ICU beds, collapsed a few days ago. New ICU beds have been set up in the library, rehabilitation gym, operating rooms, and recovery rooms. The hospital has been completely transformed in less than 2 weeks. We even have a military field hospital run by Doctors Without Borders that handles triage. Only patients who have pneumonia and are in serious condition are admitted; most COVID-19 positive patients are sent home to be treated by their general practitioners or sent to nearby converted hotels. Hospitals are almost entirely filled with COVID-19 patients, even though the number of patients is 50% more than the maximum capacity. Today we have 863 COVID-19 patients. We have had up to 400 patients in the emergency room waiting for a bed (or a couch).

The number of psychiatric beds in Madrid has been drastically reduced by over 60%. Most large university hospitals do not have inpatient psychiatric units anymore, as almost all beds have been freed up for COVID-19 patients. Day hospitals, rehabilitation units, and vocational units for psychiatric patients have all been closed. The number of patients attending psychiatric E&R has been reduced by 75%, but this seems to be the case for almost all other medical specialties: even cardiologists say there are fewer heart attacks and neurologists say there are fewer strokes.

We have had to adapt the services provided in my Department of Psychiatry to the new necessities. We usually have 6 staff (3 psychiatrists, 3 psychologists) in our Liaison Program. We have now 25. They are split into three major programs.

The first one is to take care of staff mental health. Some years ago, in 2004, Madrid was hit by the worst terrorist attack in its history, with ten explosions in commuter trains resulting in 193 casualties and more than 2,000 injuries. Hospitals were suddenly full, and health professionals worked night and day to save as many lives as possible, causing acute trauma for many health professionals. This is different; this is acute trauma occurring chronically day after day. Some professionals develop a sort of learned helplessness. It does not matter how hard they work and how well they do their jobs, the next day there is no reward but only punishment: more patients and more deaths. There is no controlling a demand that increases exponentially. In this program, we run small groups (no more than five or six people in order to maintain physical distancing, as social distancing is something that we have never practiced and is not in our genes) in the ICU, emergency room, and wards with the most demand. The staff is truly overwhelmed: the combination of fear, guilt, knowledge that they are not saving lives that they know could be saved under different circumstances, frustration at not having a proper treatment and at not being able to predict who is going to do poorly, and more. Most health professionals are doing jobs that they have never done before or at least have not done for a very long time. Many psychiatrists are working in COVID-19 wards or in the emergency rooms of general hospitals. Groups help to vent emotions in professionals who are dissociated most of the time (for good reason). Most cannot imagine that if they were watching what is happening in a movie with their families they would be crying. Action does not leave room for emotions. But this will eventually have detrimental consequences for their mental health. This program also takes care of staff who are at home and infected. They feel guilty for not being there to help their colleagues and in most cases for having infected their families, sometimes,

especially when this involves elderly parents, with dire consequences. Many professionals want individual counselling or ask for hypnotics to get some sleep. We have a phone number and e-mail so professionals can contact us, and we see them the same day.

A second program within the Liaison Department takes care of relatives of patients who are unable to visit them, and we have set up videoconference call systems so they can stay connected. This has proven very helpful and much appreciated by all concerned. As it takes time to procure these devices and, in some hospitals, IT security has not allowed free WiFi connection, this is something that needs to be set up well in advance. Such videoconferences in the hospital will reduce anxiety in patients and their families.

A third group is in charge of the death process. Doctors call us when they know someone is going to die and we a) inform relatives, b) ask for verbal consent to administer sedation, c) organize a “farewell” visit — only one visitor is allowed, and that cannot be someone who is at risk or COVID-19 positive, so often there is no visit and patients die with no one there for them and, in these instances, we hold videoconferences to d) inform family about the death and provide counseling. No funerals are allowed. People die in the most unthinkable solitude... No hugs, no last words, no hand-holding. If they do not receive sedation, they die from suffocation. We have also a program to identify pathological grief and have a follow-up phone call 3 weeks after the death. Not having any rituals surrounding death and the circumstances of these events make us think that we will have many cases of delayed and pathological grief.

All three programs run 24/7 and we have had to organize shifts. It helps that there are no weekends, as all days are the same when you cannot leave your home, there are no schools, etc.

Another reason for consulting the Psychiatric Liaison Department is when patients want to leave the hospital or refuse to take medications. In this case, it is important to know whether or not the reason for not doing so is a previous mental disorder (in which case, it is a public health matter and no further psychiatric involvement is needed). In many cases, patients are in a state of confusion and are not aware of the consequences of their actions.

I also believe that, due to fear of contagion, police and the population in general have less patience with psychiatric patients who do not follow rules such as social distancing. This makes them especially vulnerable to abuse and ostracism by society.

Our inpatient psychiatric unit is one of the few that remain open in Madrid. We have one section for COVID-19 patients, one section for potential victims awaiting test results, and another section for COVID-19 positive cases. Most infections occur because there are no clear clean and dirty paths within the hospital (e.g., vertical infection through elevators, stairs, and such, in individuals who move from one place to another or in patients who are taken to Radiology). It is important that there be separate spaces, staff, and paths for non-COVID-19 and COVID-19 psychiatric inpatient units.

All appointments are done by videoconference or telephone. We have not cancelled a single one. Nurses go to the homes of those who need medications or other services. Another problem we are facing is that, in Spain, most patients with severe mental disorders live with their parents (e.g., a 50-year-old patient with chronic schizophrenia). Some have parents or caregivers who have died. These

patients are by themselves and unable to take care of their basic daily needs. There is of course a social component of the health crisis for many of our patients.

There have been insufficient safety measures including wearing of masks. Physicians and patients are now required to wear surgical masks, but this has been implemented only in the last week. Despite controversies about this (1), this should have happened much sooner. Eighteen percent of our staff has been infected, and health professionals constitute 14% of all infected individuals in Spain. I believe most of these cases are transmitted by colleagues rather than patients. People may be asymptomatic for up to a week before becoming ill, so many of our colleagues that we believed had less risk have been the cause of contagion among professionals. When COVID-19 patients are treated, in addition to a mask, staff need to wear gloves and gowns, and if there is physical contact, PPE such as glasses or face shields. The problem is that when patients are very agitated, there is no time to put on PPE or it is easily broken in the process of physical restraint. As many staff will be infected, it is important that replacements be prepared and trained ahead of time, when that is a possibility...

There have been many deaths among the elderly in nursing homes and other long-term care facilities. We have also had some deaths in residential facilities for individuals with intellectual disabilities and autism. Rather than taking sick residents to hospitals, the residences are converted to treatment facilities. We also have some hotels near the hospital that have been converted, and less severely ill patients are treated there. The government now has the power to appropriate any public or private property in the public interest.

One of the many mistakes the Spanish government made was that people with intellectual disabilities or autism were allowed to go out into the streets. This was done with the best of intentions (to minimize behavioral problems in this vulnerable population). However, this is precisely a population that must not become infected because a) it is very difficult for them and for the system – especially now – to manage them in a hospital, b) a relative is also infected as they need someone with them, and c) sadly enough, they are not eligible for ICU care.

As an advisor for my hospital's crisis committee, most days I visit all the different wards and units in the hospital. The most distressing for me is the gym where we now have around 70 beds, all with elderly victims who have been refused ICU admission when needed. They are aware of this, and of course they are all by themselves. You cannot imagine how loud the absolute silence there resonates, despite the large number of patients. I am sure they are all reliving their lives. We should all learn from this lesson and use it when it is our turn in the future. And worse is yet to come. Take care.

Disclosure:

Dr. Arango. has been a consultant to or has received honoraria or grants from Acadia, Angelini, Gedeon Richter, Janssen Cilag, Lundbeck, Minerva, Otsuka, Roche, Sage, Servier, Shire, Schering Plough, Sumitomo Dainippon Pharma, Sunovion and Takeda.

Acknowledgments:

The author has been supported by the Spanish Ministry of Science and Innovation. Instituto de Salud Carlos III (SAM16PE07CP1, PI16/O2012, PI19/O24), co-financed by ERDF Funds from the European

Commission, "A way of making Europe", CIBERSAM. Madrid Regional Government (B2017/BMD-3740 AGES-CM-2), European Union Structural Funds. European Union Seventh Framework Program under grant agreement FP7- HEALTH-2013-2.2.1-2-603196 (Project PSYSCAN) and European Union H2020 Program under the Innovative Medicines Initiative 2 Joint Undertaking (grant agreement No 115916, Project PRISM, and grant agreement No 777394, Project AIMS-2-TRIALS), Fundación Familia Alonso and Fundación Alicia Koplowitz.

References:

Emanuel EJ, Persad G, Upshur R, Thome B, Parker M, Glickman A, Zhang C, Boyle C, Smith M, Phillips JP. Fair Allocation of Scarce Medical Resources in the Time of Covid-19. *N Engl J Med*. 2020 Mar 23. doi: 10.1056/NEJMs2005114.