



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.



Letter to the Editor

Psychological preparedness for the COVID-19 pandemic, perspectives from India



Dear Editor,

The Coronavirus disease 2019 (COVID-19) has emerged as a public health crisis globally. As the toll of infection increases over the last three months, we have started to wonder if the Indian picture would be somehow different. Just when the baseless myths started pouring in about the Indian genes, climate and environment being resistant to the causative agent SARS-CoV-2, India reported its first case on 30th January 2020 (Ministry of Health and Family Welfare GOI). All over the world, it took approximately six weeks to reach one lakh infections. It took a little more than further six weeks for more than a million to get affected, and nearly 80,000 people succumbing to the outbreak. The global death count was initially doubling every ten days and over the last one month has been doubling half that rate (World Health Organization Situation Report as on 8 April 2020). Europe accounts for more than a half of all the deaths, Spain, Italy and Germany being hit the worst. Countries like China took the initial brunt of infections and mortality while subsequently South Korea, Iran and United States were amongst the other countries with severe impact of COVID-19. In fact, this is the typical snowballing of a pandemic. It gathers rapid momentum once mass movement starts spreading the virus to different parts of the world. This is specially so with COVID-19, which is highly contagious with increased human-human transmission, though lesser fatal than its earlier congeners like SARS and MERS (Peeri et al., 2020). Confirmed cases in India as of today (8th April 2020) have just crossed five thousand with 149 deaths, and 411 cases have recovered. Indian Council of Medical Research (ICMR) has assured that the country is yet to move to the stage of community transmission, to prevent which the Government has imposed the 21-day nationwide lockdown, first time in history. This unprecedented lockdown was sudden, though necessary carrying immense implications to the daily life of billions. As the national lockdown proceeds, a wave of uncertainty prevails in its duration, helpful effect, impact and aftermath. Even though the lives of citizens are considered ahead of the economy, life will not stop with the pandemics. It is the feared situation after life resumes normalcy, that worries one and all in the country.

Looking simply at the figures, can we all have a sigh of relief that we have fared better than the rest of the world? Probably not; testing in India has been among the lowest in the world. When the outbreak started in India, it was 10 per million which has risen to 32 per million, compared to 230 in a million in China ranging to more than 8000 per million in Italy. Before ICMR had obtained new testing kits, the reason for lower testing was mentioned as gradual increase in the number of tests based on the need (Singhal, 2020). The need is however never greater than now! Stocks are depleting fast as countries compete among themselves to obtain both testing kits and medical protective supplies. This is crucial at this juncture as once we are in community transmission, in a populated country like ours, the load of cases and associated mass hysteria can quickly overcome the public health system.

Competition for health-care needs and increasing pressure on the already scarce public health resources might lead to faulty prioritization and under-treatment. Also providing adequate ventilator-support for patients and protective equipments for health-care staff might be challenged if underprepared. An important aspect of this preparedness to gauge the situation of the country during the pandemic is 'testing for the virus'. The need for testing has been reported as the most important measure to detect trends of infection in a country, and hence prepare for containment. Dr. Tedros Ghebreyesus, the Director General of World Health Organization (WHO) has recently stressed on the importance of mass-testing claiming that a 'fire cannot be fought blindfolded' (Cucinotta and Vanelli, 2020)

1. Undercounting: the cause for 'false assurance'

The primary need to timely identify COVID-19 infected patients is to gain an opportunity in preventing secondary infections. It does not need evidence to make the scientific guess that given our population and social factors like overcrowding, poverty, class diversity, homelessness and stranded migrant population, the existing number of cases are much more than what has been detected. Even countries like the United Kingdom and United States (US), have mentioned that they are probably undercounting their cases by a factor of 12-15 (Cucinotta and Vanelli, 2020). US which definitely has a much more advanced and accommodative public health system has been in grim state with more than four lakh cases so far and nearly 13,000 deaths (WHO Situation Report, as on 8th April 2020). Millions have been jobless, and economies slashed. Does it not raise a doubt then that India, having 20 times more the population, has only been detected to have five thousand cases so far! It might foster sense of security and mental well-being in most of us, which will keep the ominous truth of 'viral case load' in the hidden shadows.

If the testing is random and widespread, the number of cases affected might quickly climb to more than thousands each day. This is a public health fact that we need to be prepared for without being in panic or fear mongering. Stress is natural during such times and that can be harnessed for positive action, knowing that this is how epidemics spread. Under-preparedness fosters increased stress, due to the added burden of uncertainty and fighting an unknown infection in the 'blind'. Also being considered as an 'infodemic' in this digital age, COVID-19 has led to a plethora of misinformation and rumors that have further added to the mass-fear and anxiety (Pennycook et al., 2020). The lockdown in that case is a welcome measure, as it was imposed at the epicenter of this pandemic in Wuhan, China. However, various marginalized population like the homeless, the daily wage workers and migrant laborers fell victims to it, as they were stranded away from their homes at crowded places without the basic and essential amenities of life. The standard precautions of social distancing and hygiene are impossible at these setups. Their needs are much more practical and

<https://doi.org/10.1016/j.psychres.2020.112999>

Received 6 April 2020; Received in revised form 8 April 2020; Accepted 8 April 2020

Available online 14 April 2020

0165-1781/ © 2020 Elsevier B.V. All rights reserved.

reality-based struggling for the basic life amenities when the fear of death due to hunger and poverty is much more worrisome than the fear of the coronavirus.

From the disease perspective, things are really unpredictable. We often get asked about the aftermath of this pandemic and there is no easy answer to that. It totally depends on where COVID-19 is going to leave us, and its chronic impact on economy, quality of life and psychosocial outcomes on a global landscape. If the virus mutates to a less virulent form, or the increasing humidity or geographical sensitivity affects it for the better, we are lucky. But these are only speculations, with debatable evidence behind the same. Viruses do mutate, but it can go in either way in terms of virulence and hence the pathogenesis and severity of infection. If projections from Europe are applicable to India, the prevalence should be higher than 20 percent (Sahin et al., 2020). In other words, millions of affected cases and thousands of severe infections are projected in India, as happening in the countries of Italy, Spain and US. So far, the elderly and the immunocompromised have had the greatest vulnerability, accounting for most fatalities in India and thus projected risk is highest amongst the oldest old. What is more crucial is that, these cases are supposed to appear in the next two to four months window. As mentioned before, the fear of exhausting our resources leading to increased vulnerability to the social evils are much more rather than the threat of mortalities.

Certainly our public health system is not ready for this: India has somewhere between 70,000 and 1,00,000 intensive care unit beds and a smaller number of ventilators. The doctor patient ratio is 1: 1800 which falls short of the 1:1000 as recommended by WHO (Deo, 2013). This is even when we consider all the specialties, many of whom might not be adequately trained for infectious disease management. So the statistics alone are inadequate! Large, temporary hospital setups and maximum utilization of the district level healthcare and private resources need to be aggressively planned in the coming days. Accommodation of the patients is the biggest challenge in developing countries during a pandemic. As parks, stadiums, educational institutions and government buildings are being converted into COVID-19 isolation centres, the numbers are still inadequate for the projected rise in cases, should the infectious burden worsen. Eventually, it is not the virus that kills but the under-detection, lack of treatment, public chaos, competition over limited healthcare and mayhem as seen before during the Influenza epidemic in India (Sahin et al., 2020). We definitely hope such stage will never arise. However, it is better to over-react rather than stay under-prepared.

2. Social and emotional preparedness for pandemics

The current global status resembles a doomsday movie with a dystopian future. History has shown that among all the catastrophic events to strike humanity including a nuclear fallout, pandemics like the Bubonic Plague, Spanish flu or SARS have always been of the highest impact. The probability factor is uncertain that makes it all the more difficult to prepare for them. Epidemiologists, virologists and public health experts have warned governments all over for an advanced preparedness. It needs to be at every level of health-service, policy making and their implementation. Mental health and psycho-social health are integral part of this preparedness, as pandemics affect the society at a large, more than just individuals. There were some policy changes made after the SARS, MERS and the Influenza outbreak, but pandemic preparedness in India has mostly been on the backseat (Kakkar et al., 2010). The emotional preparedness and timeliness of the lockdown could also have been better, with advanced sensitization to the impoverished sections of the society, who are vulnerable to any infection for that matter. Emotional health at all tiers needs to be

integrated into the public health infrastructure. However, it is also true that no amount of planning can prepare us for such a large-scale occurrence.

At times of crisis, it is easy to blame any particular country for being the root cause of the outbreak or get frustrated on your own Government for the lockdown and isolation. However, the administration is trying with the best that it can and now it is the time to emotionally stand together, keeping a caring watch on our families, friends, relatives, neighbors, co-workers and employees. This includes the household help, security guards, vendors and basically anyone that you come across. Also, the vulnerable population includes not only the doctors and nurses but also all the allied workers on the frontline: the police, the volunteers, security personnel and people involved in testing and cleaning. Ideally, 'social distancing' is a misnomer and should be replaced by 'physical distancing'. Mutual support can strengthen emotional bonds, which in turn helps coping and positivism. Such a crisis is the best time to increase our resilience using social integration and human values. The precautionary measures need to be followed and advocated. It is also better to distance from the social media to prevent 'information pollution'. Rumor mongering is extremely harmful as misinformation can have detrimental effects on public health. One senseless forward can trigger a cascade of harmful reactions, if in wrong hands and especially during crisis.

The scenario in our country can get potentially worse with time. The pandemic needs to be harnessed as a tool for enhancing community bonds, fighting misinformation, understand the 'double-edged' role of media in crisis and finally appreciate the importance of public health and the need for integration of mental well-being into it. The lessons learnt might make us better equipped, emotionally and socially, for such futuristic crises.

Funding

NIL

Declaration of Competing Interest

NONE

Acknowledgement

NIL

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2020.112999](https://doi.org/10.1016/j.psychres.2020.112999).

References

- "Home | Ministry of Health and Family Welfare | GOI". www.mohfw.gov.in. (accessed on 8th April 2020).
- Cucinotta, D., Vanelli, M., 2020. WHO Declares COVID-19 a Pandemic. *Acta bio-medica: Atenei Parmensis* 91 (1), 157.
- Deo, M.G., 2013. Doctor population ratio for India-The reality. *The Indian journal of medical research* 137 (4), 632.
- Kakkar, M., Hazarika, S., Zodepy, S., Reddy, K.S., 2010. Influenza pandemic preparedness and response: A review of legal frameworks in India. *Indian journal of public health* 54 (1), 11.
- Peer, N.C., Shrestha, N., Rahman, M.S., Zaki, R., Tan, Z., Bibi, S., Baghbanzadeh, M., Aghamohammadi, N., Zhang, W., Haque, U., 2020. The SARS, MERS and novel coronavirus (COVID-19) epidemics, the newest and biggest global health threats: what lessons have we learned? *International journal of epidemiology*.
- Pennycook, G., McPhetres, J., Zhang, Y. and Rand, D., 2020. Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy nudge

intervention.

Sahin, A.R., Erdogan, A., Agaoglu, P.M., Dineri, Y., Cakirci, A.Y., Senel, M.E., Okyay, R.A., Tasdogan, A.M., 2020. 2019 Novel Coronavirus (COVID-19) Outbreak: A Review of the Current Literature. *EJMO* 4 (1), 1–7.

Singhal, T., 2020. A Review of Coronavirus Disease-2019 (COVID-19). *The Indian Journal of Pediatrics* 1–6.

World Health Organization, 2020. Coronavirus disease 2019 (COVID-19): situation report, 67(accessed on 8th April 2020).

Dr Debanjan Banerjee*

Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
E-mail address: dr.Djan88@gmail.com.

* Corresponding author: Dr Debanjan Banerjee, Department of Psychiatry, NIMHANS, near Dairy Circle, Hosur Road, Bengaluru 560029, Karnataka, India