The Social Impact of the COVID-19 Pandemic

SANJAY BHATTACHARYA

ABSTRACT The world is undergoing a process that some have called “covidisation”, or the unravelling of the manifold, far-reaching medical, economic, and social impacts of a global health emergency.¹ There is no dearth of analyses of the many health and economic dimensions of this first massive global civil emergency of the 21st century.² This brief examines the social aspect of the pandemic through two perspectives: one is that of a representative patient; and second, that of a medical doctor. The aim is to portray the impact of COVID-19 on patients and healthcare providers—both of whom are components of a wider community that is reeling under the weight of an unprecedented health crisis that has taken a massive toll on lives and livelihoods across the globe.
THE HUMAN FACE OF COVID-19

The statistics about the COVID-19 pandemic are clear. We know, for example, that as of the end of September, there are more than 33 million cases globally. Of these, about one million have died. In India, there are about six million confirmed cases, of which about 940,000 are active and more than five million have recovered; 97,529 have died. However, less is being written about the people behind these numbers. This brief tells their stories, and derives lessons that India and other societies can use to guide efforts at mitigating the social impacts of COVID-19.

A Patient Tells Her Story

Malabika, a 35 years old, came to the hospital in her hometown, Kolkata in West Bengal, with a complaint of fever. She had been living with a brain tumor for a year before that. She required chemotherapy and radiotherapy for palliative, but not curative, intent—the disease had progressed significantly at the time of diagnosis, and any remedy was improbable. The chemotherapy had weakened her immune system, and over time she developed anaemia, neutropenia, and low platelets. She had very few neutrophils (immunological cells vital to combat bacterial and fungal infection) in her blood, making her vulnerable to sepsis. She was given injections to boost her white blood cell count, but her body was failing to respond. Indeed, she experienced further symptoms brought about by the medications. She developed an inflammation of her oral cavity and gut mucosa which led to a burning sensation in her mouth, and seemingly intractable abdominal pain with diarrhoea.

As she had fever with a mild shortness of breath at the time of admission to the hospital, she was advised to take a COVID-19 test, and the result came out positive. She was moved to a negative pressure isolation room within the hospital, to minimise the chances of her infecting other patients, visitors or staff. Visitors were not allowed to come to the isolation ward, and her relatives could only meet her for a few minutes with full-body PPE (Personal Protective Equipment). Her consolation was that she was permitted to have her mobile phone while in the isolation room, and she

---

a The patient's real name is not used in this brief.

b Neutropenia is a medical condition where the patient has low number of neutrophils (a type of white blood cells) in the blood. These cells are very important for fighting bacterial and fungal infections.

c A negative pressure isolation room is used to manage patients with tuberculosis, chickenpox, measles, COVID, etc where disease casing microbial agents (viruses, bacteria, etc) may travel through the air-borne route. These rooms are specially designed so that they have separate ventilation systems, restricted access. The rooms are called such because the air pressure maintained in these rooms is slightly lower than air pressure in surrounding areas.
used it to communicate with her loved ones; it became her psychological life line.

The nurses were caring while the doctors were compassionate, kind and meticulous in their care. The housekeeping staff were also around—and they would help her get to the washroom and make sure to keep the room tidy and clean. However, Malabika was aware that some of the healthcare workers were afraid to come near her.

While she knew she could not blame them for their own fears, it often made her feel neglected, even sad. She missed human contact. She knew that Covid had taken a hold of her, and indeed of her cancer. Before she contracted Covid-19, the doctors had already declared her cancer to be terminal; still, now, with Covid, the cancer seemed less important. She felt the difference in the way she was treated, before and after Covid. The isolation room did not even have a window, and after a while Malabika lost track of time, of the days that passed.

Adding to her stress was the cost of all the medicines that she required. The neutropenia and the fever required treatment with antibiotics and antifungal agents, and Covid required anti-viral agents and medicines to reduce body ache and fever. She also needed oxygen therapy, plenty of hydration, rest, and nutrition. Malabika’s family, of course, wanted her to live. They were however counseled by the physicians that curative treatment will no longer save Malabika.

She eventually died of cancer. Before her body was handed over to her family she was tested for COVID-19 one last time, and it came out negative.

Themes from the patient’s narrative

Malabika is only one of the many who have suffered COVID-19. Her story highlights some experiences that are common to those who have fallen ill of the disease.

- Sense of isolation and despondency
- Social ostracism
- Perceived neglect by healthcare workers due to fear of getting infected
- Intensification of physical distress: primary disease + COVID-19 (sometimes associated with a comorbidity)
- Financial distress

A Physician’s Voice

This author has been practicing medicine for 25 years. Since the pandemic reached India early this year, he has been involved in organising the COVID testing services. He is the lead of the infection prevention and control services of the hospital he serves. He is also involved in the treatment of hospitalised patients with various infections. In the following paragraphs, the author highlights the most important issues that physicians reflect upon as they battle in the frontlines of the pandemic.
The sense of isolation and despondency felt strongly by patients with COVID-19 (or, for that matter, any other person who is ill of a communicable disease that requires protective isolation in a healthcare facility) is not uncommon. The isolation is real, although different patients perceive and cope with physical, social, psychological seclusion in different ways. Modern electronic communication systems have provided much needed mental relief and may facilitate early physical and social rehabilitation. COVID-19 patients also suffer from the social stigma surrounding the disease that manifests in different ways depending on the status of the affected or the care provider. This makes the patient reluctant to go back to the community during the infected stage. This could be due to genuine concern about infecting other family members, or due to society’s apathy towards those infected.

Such social ostracism is reminiscent of the early years of the HIV/AIDS pandemic in the 1980s, and of Leprosy since ancient times. However, unlike HIV and leprosy—which are chronic diseases—COVID-19 is an acute infection with a relatively short duration of illness. The World Health Organization (WHO) estimates that about 80 percent of patients infected by COVID-19 may be cared for and recover at home and do not suffer any serious complications. An overwhelming majority (90 to 95 percent) of patients survive without any specific treatment. This is unlike HIV which is almost universally fatal and for which treatment needs to be lifelong for the infected to survive. Moreover, COVID-19 has practically no effect on the spouse or partner beyond the period of illness in terms of sexual transmission (See Table 1). No infectious virus exists in the respiratory secretions of COVID-19 survivors. Although all viruses, by the nature of obligate parasitism, must enter host cells for multiplication and survival, there is no integration of SARS-CoV-2 virus RNA gene with the host cell gene (unlike HIV and other retroviruses)—which can lead to long-term persistence in the infected host.

Unlike leprosy, COVID-19 leaves no permanent disfigurement of the external organs, face or limbs. Lung damage, initially thought to be uncommon, has been reported in asymptomatic COVID-19 patients. In a report from the Hubei province of China, among 58 asymptomatic cases with COVID-19 pneumonia, the predominant feature of chest CT scan findings in this cohort was ground glass opacity (GGO) (55 out of 58 patients, or 94.8%) mostly involving one or two lobes of the lung (38 out of 58 patients, 65.5%). Another study from China indicated that, in COVID-19 survivors, pulmonary dysfunction can be persistent (16.7 percent of the survivors had obstructive and restrictive ventilation impairment), which may not be associated with disease severity. Most patients still
had residual abnormalities on chest CT, with ground glass opacity and pulmonary fibrosis being the most common pattern.

When a patient is hospitalised, they are kept in isolation rooms to prevent the transmission of infection to other patients and the healthcare workers. Isolation can also help prevent other associated infections in the COVID-affected person.

To be sure, relatives of Covid-affected patients, those vulnerable but not yet infected, as well as healthcare workers can harbour a sense of fear which may not always be rational. There is a prevailing ‘social phobia’ about COVID-19, and there is a need to distinguish between ‘fear’ and ‘danger’: a

---

Table 1: Biological, psycho-social differences between COVID-19, HIV/AIDS, and Leprosy

<table>
<thead>
<tr>
<th></th>
<th>COVID-19</th>
<th>HIV/AIDS</th>
<th>Leprosy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advent</td>
<td>2019-2020</td>
<td>1982-1984</td>
<td>Ancient times (detected in Egyptian mummies and ancient skeletal remains ~2000 BC)</td>
</tr>
<tr>
<td>Pathogen</td>
<td>SARS-CoV-2 virus</td>
<td>Human Immunodeficiency Virus</td>
<td>Mycobacterium leprae - a bacteria belonging to the same family which causes TB</td>
</tr>
<tr>
<td>Mode of transmission</td>
<td>Respiratory droplets. Virus enters through mouth/nose/eyes</td>
<td>Sexual transmission (hetero/homosexual); contaminated needles (e.g. intravenous drug use); contaminated blood products; mother-to-child (intra-uterine or during birth)</td>
<td>Prolonged, close contact with someone with untreated leprosy over many months. Human-to-human aerosol spread of nasal secretions. Leprosy is not spread by touch, since the mycobacteria are incapable of crossing intact skin.</td>
</tr>
<tr>
<td>Natural history</td>
<td>Acute infection (days to weeks)</td>
<td>Chronic infection: lifelong course after establishment of infection</td>
<td>Chronic infection: months to years</td>
</tr>
<tr>
<td>Treatment</td>
<td>Currently supportive and experimental</td>
<td>Can be treated and controlled to a great extent; but cannot be cured</td>
<td>Curable; facial or limb deformity which occurs only in some cases cannot be reversed</td>
</tr>
<tr>
<td>Need for treatment</td>
<td>Short (~10 days); specific anti-viral treatment not needed in most cases (~80%); supportive treatment helpful in most cases (e.g. paracetamol, maintenance of hydration and oxygen saturation)</td>
<td>Lifelong treatment required to keep infection and opportunistic infections under control</td>
<td>6-12 months in most cases</td>
</tr>
<tr>
<td>Social stigma</td>
<td>High; but variable across communities and countries</td>
<td>High, especially with regard to marriage, sexual partnership, adoption</td>
<td>High; often seen as outcasts</td>
</tr>
</tbody>
</table>

Source: Author’s own, using various UN sources

---

d Obstructive and restrictive ventilation impairment refers to specific problems related to lung physiology. Both obstructive and restrictive lung defects cause difficulty in breathing but the mechanisms are different. In one there is narrowing of air passages (obstructive), in the other the lung cannot expand properly (restrictive).
sense of fear is a psychological phenomenon which may not have any relation with real facts; whereas danger is real.

There are situations where patients and relatives may perceive healthcare providers to be distant and indifferent, even negligent. In defense of healthcare professionals, though, it must be said that doctors, nurses and other medical professionals have similar psychology and physiology as that of the patients. Not all healthcare workers are in the prime of their life, and they may be suffering from similar ailments like other members of the community. They are trained to care and manage dangers while dealing with patients. Failure of healthcare can be a random event or due to a system failure. They are almost always never deliberate. These facts are difficult to explain to the patients and their relatives in times of great physical, mental and financial stress, but healthcare workers are members of the same society from which the patient comes. The healthcare workers and the society depend on each other for mutual survival, and sense of appreciation; their relationship like their existence is indivisible.

**DISCUSSION**

COVID-19 has had a massive impact on health and healthcare; its effects are variable across sectors (See Table 2). For example, social distancing, self-isolation and travel restrictions have led to a reduced workforce across all economic sectors and the loss of jobs. Schools have closed down, and the need for commodities and Table 2: Common socio-economic impacts of COVID-19

<table>
<thead>
<tr>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social distancing and self-isolation</td>
</tr>
<tr>
<td>Travel restrictions</td>
</tr>
<tr>
<td>Reduced workforce across all economic sectors</td>
</tr>
<tr>
<td>Job loss</td>
</tr>
<tr>
<td>School closure</td>
</tr>
<tr>
<td>Disruption of normal life of children</td>
</tr>
<tr>
<td>Decreased demand for commodities and manufactured products</td>
</tr>
<tr>
<td>Increased need for medical supplies</td>
</tr>
<tr>
<td>Increased demand in food sector</td>
</tr>
<tr>
<td>Panic-buying and stockpiling of food products.</td>
</tr>
<tr>
<td>Domino effect on health, healthcare and nutrition</td>
</tr>
<tr>
<td>“Infodemic”: spread of panic and fear through social media</td>
</tr>
<tr>
<td>Xenophobia against specific ethnic/geographic groups</td>
</tr>
<tr>
<td>“COVIDIZATION” of academic research: undermining other areas of research and scholarship.</td>
</tr>
<tr>
<td>Poor people, homeless people, refugees, migrants are disproportionately affected by the health and economic impacts of COVID</td>
</tr>
</tbody>
</table>

Sources: Pai, 2020; UN, 2020; Nicola et al, 2020; Gopalan and Misra, 2020
manufactured products has decreased. In contrast, the need for medical supplies has significantly increased. The food sector is facing increased demand due to panic-buying and stockpiling of food.

Understanding the psycho-social issues of Covid-infected individuals and their care providers is critical for the implementation and maintenance of healthcare services as well as for the socio-economic re-integration of community members. The social rehabilitation and psychological support of a Covid-affected patient is as important as their timely diagnosis and medical care. As the healthcare system matures, fulfilling these real requirements of patients will become not just desirable but essential.

Different thematic strands have emerged from a qualitative analysis of narratives from a patient and a doctor. The narrative from the patient has highlighted fear, apprehension, dejection, disappointment, distress, and a sense of isolation, but also hope. The physician's narrative, meanwhile, provides insights on health and safety reasons associated with the medical isolation of patients affected with COVID-19, the challenges of healthcare, information about natural history of the Covid infection, differences between COVID-19 and HIV/AIDS and leprosy in terms of biology and social perception, and perceptions about the dynamics of patient-healthcare worker interaction.

**Healthcare expenditure and Financial stress**

The impact of out-of-pocket healthcare expenditure on personal/family finances and social distress is a real problem during the present times. In India, the mean OOPE (out of pocket expenditure) on hospitalisation was INR 19,210 in 2014-- the cost was highest for cancer (INR 57,232) followed by heart diseases (INR 40,947). About 28 percent of the households incurred CHE (catastrophic healthcare expenditure) that same year and faced distress financing.\(^\text{12}\)

The average cost of managing a respiratory illness previously reported in India was INR 14,046 in 2014.\(^\text{13}\) It is likely that when we use drugs still undergoing clinical trials for COVID-19 (e.g. Remdesivir or Tocilizumab), and if patients require life support systems (mechanical ventilation, dialysis, intensive care) or has a prolonged length of hospital stay, the cost of healthcare would be much higher. In view of this, state governments like that of West Bengal have issued advisories to private hospitals regarding recommended price list for services for the care of the COVID-19 patients.\(^\text{14}\)

Studies have previously analysed the degree of “financial toxicity” that can affect the lives and livelihoods of families in the event of an illness (See Table 3). A similar phenomenon may be happening in this era.
of COVID-19. The nationwide lockdown—in its supposed attempt to control the biology of the pandemic—has only exacerbated people’s financial difficulties.

**Psycho-social distress**

The COVID-19 pandemic, and the subsequent lockdown to flatten the curve, has had a tremendous psycho-social impact on societies. (See Tables 2 and 4).

A study from a Spanish University where lockdown was in place reported moderate to extremely severe scores of anxiety, depression, and stress amongst 21 percent, 34 percent, and 28 percent of the respondents, respectively. In India, there have been reports of depression and incidents of self-harm.

### Table 3: Grading criteria for Financial Toxicity due to Medical Expenses

<table>
<thead>
<tr>
<th>Grades</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1      | • Lifestyle modification  
• Deferral of large purchases  
• Reduced spending on vacation and leisure activities  
• Use of charity grants/fundraising/copayment mechanisms to meet costs of care |
| 2      | • Temporary loss of employment due to disease/medical treatment  
• Need to sell stocks/investments  
• Use of savings accounts, disability income, or retirement funds |
| 3      | • Need to mortgage/refinance home to pay medical bills  
• Permanent loss of job as a result of medical treatment  
• Current debts greater than household income  
• Inability to pay for necessities such as food or utilities |
| 4      | • Need to sell home to pay for medical bills  
• Declaration of bankruptcy because of medical treatment  
• Need to stop treatment because of financial burden  
• Severe psychological crisis |

*Source: Adapted from Khera and Lyon*

### Table 4: Psychological impact of the COVID-19 pandemic

- Acute panic attacks
- Significant positive statistical correlation between self-reported social media use and the spread of panic related to Covid-19
- Stress, fear and anxiety during physical distancing seen in children and adults
- Obsessive behaviours
- Hoarding
- Paranoia
- Depression
- Post-traumatic stress disorder (PTSD) in the long run

*Sources: Ahmad and Murad; UNICEF*
CONCLUSION

Even as the world has already seen medical emergencies in earlier eras (e.g. the 1918 Spanish Flu pandemic), COVID-19 represents a watershed event. In the age of internet, social media, and instant transcontinental communication and mass transportation, COVID-19 is one of its kind, given the degree and swiftness of its spread. It is occurring in an age when the global economy is more integrated than ever before, and people, goods, money and ideas move faster than they have ever done. Consequently, the effect of a microbial disease with intercontinental spread and fatal potential has affected society more than at any time in the past.

The ways and means by which people are coping with the pandemic would be based on the quality and resilience of their social and psychological framework. WHO, in its effort to contain the impact of COVID-19 at the global level, has put forward a set of recommendations for the general public as well as specialists. The advisories include: a) need to describe patients with COVID with more empathy and understanding; b) limit exposure to stressful media news which leads to avoidable anxiety; c) appreciate and facilitate dissemination about the societal achievements regarding COVID and not just look at the sufferings and failures; d) to honour, appreciate and reward caregivers and healthcare workers; e) maintenance of social or familial networks; f) guidance for the maintenance of physical fitness and general health; g) regarding need to have essential/emergency contacts for practical or medical help; h) need to maintain a healthy routine of daily activities; i) need to keep children and other vulnerable people as close to their family as possible despite maintaining social distancing; j) orientation of responders including nurses, ambulance drivers, volunteers, peripheral healthcare workers doing contact tracing, teachers and community leaders and workers in quarantine sites on how to provide basic emotional and practical support to affected people (psychological first aid); and j) need for timely, accurate, high quality information for communication.

It is clear that COVID-19 has to be fought at various levels. These strategies also have to evolve with time as new social and scientific evidence is reported. The social policy with respect to COVID-19 also needs to encompass the most vulnerable sections of the population, i.e. women and children who face abuse, mistreatment, domestic violence, decreased financial stability and who face double discrimination during these times.21

SARS-CoV-2, the virus that causes COVID-19, like millions of microbes that cause diseases, neither feels nor cares about human suffering. Yet, society is led by human beings who make policies that influence the welfare of their fellow human beings. The COVID-19 pandemic reveals the need for serious attention for policymakers with regard to public health service provision, mental health support for...
The Social Impact of the COVID-19 Pandemic

The vulnerable, and economic management. Those preparing a policy framework and making guidelines to combat the long-term social impacts of COVID-19 are required to be cognisant to these non-viral realities of a viral pandemic. ©RF

ABOUT THE AUTHOR

Dr Sanjay Bhattcharya is a Consultant in Microbiology at the Tata Medical Center, Kolkata.
ENDNOTES


8 Pai M, “Covidisation' of academic research: opportunities and risks”


13 Kastor A, Mohanty SK, “Disease-specific out-of-pocket and catastrophic health expenditure on hospitalization in India: Do Indian households face distress health financing?”


The Social Impact of the COVID-19 Pandemic