Collateral effects and ethical challenges in healthcare due to COVID-19 – A dire need to support healthcare workers and systems

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Abstract

COVID-19 has affected the daily activities of people across the globe. The effects of the pandemic have not just been medical, but also societal and economical. The responses of government and the public have varied in different countries. Measures have ranged from improving hygiene, information dissemination, and social distancing to more radical measures such as social isolation, quarantine and lockdown. The disease and human responses have had consequences on the way we live, work, eat and rest. Life and livelihoods have been affected. This article highlights how the response to the pandemic has affected various aspects of healthcare and ethical dilemmas this has raised. As the pandemic progresses, awareness and evaluation of the unintended consequences of the pandemic and responses on our health and healthcare systems are needed. Discussing these points and being aware of the ethical issues may help countries and policy makers plan suitable strategies to mitigate these collateral effects, especially as the pandemic continues. It is hoped that this article will support healthcare workers, especially those in primary and secondary healthcare, as they overcome various challenges to treat patients with existing and prior diseases, and encourage them to advocate for robust and sustainable healthcare systems for public health. This would then help effectively combat future epidemics. Most importantly, it can mitigate the adverse collateral effects on healthcare that the public are experiencing and the treatment dilemmas that family and primary care physicians are facing.

Keywords: Doctors, health, hospitals, pandemic, systems

Introduction

The advent of the COVID-19 pandemic globally, has impacted lives in previously unimaginable ways. Countries have had to devise and implement policies on countering COVID-19. Many have employed infection control measures on a war footing to curb the spread such as hand hygiene, usage of masks and social distancing, coupled with isolation and quarantining for those suspected or confirmed to have COVID-19.[1,2] Some measures have had adverse effects in social, economic, educational, psychological and health realms.

Many countries implemented lockdowns under the epidemic provisions of their legal system to reduce spread and flatten the epidemiological curve.[3] Policymakers instituted these measures to improve health infrastructure and manage the influx of COVID patients when the pandemic peaks.[4] The lockdown has had varying effects on countries and populations. The benefits and harm the lockdown has caused could be debated indefinitely without definitive conclusions due to diverse demographics, collateral factors and varying individual situations.

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What needs to be discussed, however, is how healthcare and healthcare workers have been affected due to COVID-19 and the potential consequences. As the pandemic continues in many countries including India, or a second wave appears on the horizon, restrictive measures and enforcement of containment may be inevitable. Hence, it is essential to understand the collateral effects on healthcare and health. Also, as the physicians' role is to treat and prevent all diseases (and not just pandemics), physicians are facing not just the brunt of the pandemic, but also dilemmas and challenges in treating their existing patients and prevent complications. This is particularly a challenge for family and primary care physicians who are at the community level. The main intention of this piece is therefore to highlight the problems that physicians and patients are facing during the pandemic, touch on some ethical dimensions and hopefully stimulate further thought and discussion on support for healthcare systems and physicians in their hour of need.

Healthcare access

The COVID-19 pandemic has changed the way healthcare is approached. Devising ways to curb the spread has assumed importance. Managing COVID-19 patients has become a priority due to the very nature of the pandemic, as well as fear related to complications and mortality. Unfortunately, the treatment of other routine health conditions has suffered a setback. Low and Middle-Income Countries (LMICs) have probably experienced more setbacks due to their less sub-optimal healthcare systems, lack of resources, and overall vulnerability. Also, some sections of societies are more severely affected than others.[5] In India, the pandemic had initially brought life to a standstill. All means of public and private transport facilities were suspended except for emergencies.[6] Lack of transportation, restrictions on travel, conversion of hospitals into COVID-19 'exclusive' hospitals, stoppage of non-essential elective surgeries, and closure of outpatient services affected healthcare in urban and rural areas differently. The inability to access hospitals impaired the principle of autonomy in accessing healthcare, besides touching on justice issues. After all, the mainly affected sections of society were: (i) those with existing infirmities unable to access their physicians (ii) the elderly, vulnerable to exposure, unable to readjust to alternative strategies (iii) those unable to afford expensive healthcare facilities and (iv) those in rural areas without any means for transport.

Chronic disease management

Patients with chronic diseases have faced great hardship when their routine consultations abruptly stopped. The state-level disease burden study says that non-communicable diseases such as cardiovascular, chronic respiratory, cancers, accounted for 62% of deaths every year. Communicable diseases such as diarrhea, lower respiratory infections, accounted for 27%.[7] Many patients have faced acute complications and mortality from lack of physician supervision requiring further immediate access to healthcare professionals and timely therapy.[8] Many non-communicable conditions require routine checkups to prevent complications with measures such as angioplasty, chemotherapy, dialysis, and transplants. The principle of non-maleficence (minimizing harm) needs to be embraced to reduce such risks.

Treatment of cancers have been significantly affected as specialized centers functioning optimally are minimal.[9] Patients are at risk of stopping medicines, exhaustion of stock, non-availability nearby, and associated complications. Patients attending rehabilitation, psychiatry, multi-drug resistant tuberculosis, HIV clinics and other disciplines face similar experiences. The other patient group experiencing delays in treatment were those due for elective surgery.[10] Those needing critical surgeries were at particular risk. Patients obtaining passes for inter-state travel underwent quarantining as per applicable rules. Most medicines used for critical conditions are parenteral and require supervised administration.

As patients were desperate, the burden has fallen on physicians at the primary care level.[11] The challenge for such physicians involves lack of infrastructure and accessing prior investigations. Many physicians have had to find alternative strategies for these stranded patients leading to a stressful time for all healthcare providers. The problem is further accentuated with some hospitals being designated as "COVID-19" hospitals. This initially led to stoppage of certain services in hospitals. As a consequence, many physicians in primary healthcare could not refer patients to higher centers.

The role of healthcare workers and the need to support physicians at primary care

Most LMICs, including India, do not have enough healthcare workers to cater to the needs of their population, especially in rural areas. In times of acute need such as the pandemic, each and every healthcare worker matters, with shortfall having precipitous consequences for patients.

A lack of transport and closure of some healthcare facilities had resulted in reduced availability of healthcare workers. In addition, physicians who routinely offered their services to nearby districts were unable to do so. Limited availability of healthcare workers could increase stress for those regularly depending on these healthcare services and overload healthcare workers continuing with duties. Specific health clinics for routine antenatal care, national health programmes and immunization of children might have been affected, thereby increasing the risk of resurgent infections such as measles.[12] Such consequences are not just for the individuals concerned, but also for the society at large.

The other critical aspect to consider in this pandemic was that healthcare workers being at the forefront of care are vulnerable to the infection, especially in the initial stages with limited availability of personal protective equipment. Unfortunately, vulnerability increases with chronic disease conditions and other risk factors

such as increasing age among more experienced physicians. As the pandemic progresses, the number of healthcare workers succumbing has increased leading to a shortage of healthcare workers in some hospitals. Loss of experienced staff at all healthcare levels has been a problem. Fortunately, many have continued with their call of duty and their courage has been witnessed by the public as the pandemic progresses. The winner has been the principle of beneficence (benefit), with sustained care for patients continuing in many areas in spite of the challenges on the ground.

Family physicians and primary care physicians have been facing the greatest challenges as "frontline warriors on the ground" in the battle against the pandemic at the community level. Besides increased vulnerability due to proximity with patients and difficulties in accessing clinics especially in more remote areas, physicians have had to bear a great responsibility as the pandemic spread its tentacles into the community. Individual sickness, sickness of support staff, lack of healthcare protection, minimal diagnostic facilities, irregular supply chain for medicines, fear and suspicion among the public, difficulties in opening clinics are just some of the challenges faced. In addition, since regular patients faced difficulties in visiting the doctors, challenges in prompt diagnosis and optimal treatment have been experienced. Despite these difficulties, and at great personal cost, family and primary care physicians have often been unsung heroes, plodding on by caring for those sick and in need. This courage and sense of duty and the role played by the physicians in containing the pandemic needs to be recognized by all stakeholders. However, for these physicians to continue in this selfless and sometimes thankless effort in containing the pandemic, urgent support systems should be in place. This includes financial support to improve infrastructure, more human resource training in combatting specific issues with COVID and associated conditions, improved supply chain for personal protection and medicines as well as individual support to alleviate stress. If we are able to collectively address and support our family and primary care physicians, the entire healthcare system will benefit and the strain on the intensive care systems may become bearable. If adequately equipped and supported, physicians at the primary care level can turn the tide against the pandemic and also improve public health at large.

Anxiety and fear among patients

The fear and anxiety associated with COVID-19, bombarding of information through mainstream and social media, stigma in certain quarters of the society, lack of daily wage employment, and financial instability have all contributed to a plethora of psychological issues in the society. In addition, social isolation and the potential threat of being quarantined play a part. One can anticipate that increased stress due to unexpected events will continue as the pandemic progresses, especially as research into treatment and vaccine development continues.

The fear of acquiring COVID-19 has resulted in patients delaying hospital visits and presenting late in the course of illness leading to complications or increased mortality. In order to counter anxieties and fears among the patients and public, physicians as leaders in healthcare, especially those at the community level, need to take the lead in clearly communicating to their patients regarding the do's and don'ts during the pandemic. This can be done by understanding the minds of the public and giving clear messages in understandable language regarding the disease, how to prevent it, why social distancing is essential, and so on. Frequent updates and clear directions are needed as the pandemic continues to evolve and responses change. In addition, physicians need to discuss alternative strategies for the patient's primary diseases especially if the patient needs to be treated at the primary care level. This will encourage and enable the patient to understand alternatives available if the situation warrants. The media also needs to take a principled stand and ensure a constructive role in sensitizing the public in consultation with physicians. Efforts to avoid sensationalism and ensuring confidentiality of those falling victim to COVID-19 need to be encouraged.

Access, affordability, and inappropriate use of medicines

The availability, affordability, and accessibility to medicines have been a source of concern during this pandemic. Many other countries depend on China for Active Pharmaceutical Ingredients (APIs) for different medicines, especially antibiotics. Due to the initial shutdown in China, there were disruptions in the supply chain of medicines (problems in the production of APIs, import delays and transportation issues).[13] The supply of antibiotics needed for infections were initially affected. Currently antibiotic availability is back to normal. Conversely, use may be increased due to their use for symptoms suggestive of infections, but not being sure about the causative microorganisms due to delays in testing and diagnosis. Primary care physicians need to be judicious, however, since unwarranted antibiotic use may lead to destruction of commensal flora in the intestine, thereby increasing vulnerability of the patient to COVID-19 as well as increasing the risk of antimicrobial resistance.

Functioning pharmacy facilities in certain geographical areas has not always been optimal during this pandemic. Access to medicines in rural areas was probably most affected. Price fluctuation and availability of personal protective equipment (PPE) such as masks was another major issue. Fortunately, as the production of PPEs increased and regulations on hoarding were tightened, healthcare workers healthcare facilities have acquired adequate PPEs.

A paucity of certain medicines was also a problem due to hoarding, when certain medicines were highlighted in the media as having promising effects against COVID-19. For example, patients regularly using hydroxychloroquine (HCQ) for rheumatoid arthritis, faced non-availability due to sudden demand, thereby leading to disease flare ups. Access to emergency authorized medicines such as Remdesivir has also been an issue especially for smaller healthcare facilities. The situation appears

to be improving in bigger hospitals. Though the overall situation is far from optimal, forward momentum in price control of essential medicines and discouraging hoarding of essential items such as PPEs needs to be appreciated.

Ethical challenges for the healthcare system

Healthcare systems in countries have been significantly affected due to the COVID-19 pandemic. The ethical complexities within the system are enormous. For the healthcare worker, especially primary care physicians on the ground, a plethora of decisional dilemmas in diagnosis and treatment have to be made. Significant changes in work style have often impeded decision making and treatment flexibility. Increased risk among healthcare workers due to overwork, lack of personal protection in certain facilities and issues of stigma and public pressure have been experienced. For the healthcare recipient, minimal access to their trusted physicians and the earlier mentioned difficulties have contributed to psychological and physical trauma. For the healthcare system, the autonomy to treat patients based on capacity has been compromised and routine protocols superseded by pandemic guidelines. Since human resource and infrastructural capacity have their limits, there are issues of distributive justice also. The risks of turning away patients due to lack of beds, benefits for smaller numbers saved through intensive care, demand versus supply in medicines and PPEs are just some examples. Difficult situations have risen due to the system being overloaded and a capacity crunch due to COVID-19 patients. Healthcare providers have had to choose among patients needing admission. The situation has been critical for patients needing admission to intensive care units (ICUs) with inadequate ventilator numbers.

Data from the Association of Healthcare Providers in India[14] suggest that private hospitals bore the brunt of the lockdown. While many hospitals functioned less than 25% of their capacity, a few remained wholly shut in the initial phase. The situation in clinics was no different with some closed voluntarily, while other being sealed, due to patients later testing positive for COVID-19. Also, a number of healthcare workers have succumbed to COVID-19 while treating patients and general practitioners account for a significant percentage of this.[15] The predominance of asymptomatic patients, a long incubation period of illness, and limited testing centers during the initial stages of the pandemic have further increased the risk of transmission to healthcare staff. All this has further burdened the already overstretched healthcare system in India and posed ethical dilemmas and challenges to healthcare workers. Though this has created tremendous challenges to the healthcare profession, the workers have bravely plodded on with their call of duty. This act of courage needs to be supported in a sustained manner by our policy makers and public beyond the pandemic.

Effect on other health-related issues

The outbreak and ensuing lockdown have also brought other risks into the limelight, needing well-planned interventional strategies. Distress deaths and suicides due to the social stigma surrounding COVID-19 (isolation, quarantining, etc.), have been reported. Some healthcare workers have had difficult encounters with the public, and a few denied entry into apartments and localities. There has been an alarming rise in domestic abuse and gender-based violence, leading to physical and psychological injury in communities. The mass migration of people enduring long walks with little protection, water, or nutrition has had adverse health effects. The closure of schools for months has meant a lack of access to mid-day meals among poor students, posing problems of malnutrition and growth and health of children in the long term. Staying at home has also led to boredom and loneliness in many. These kinds of difficulties do not often get recognized in busy healthcare systems, but when patients express it, the role of family and primary care physicians are crucial. Empathy and concern shown by these physicians will go a long way in true and wholistic healing of the patient.

'Beneficial' Effects During the Pandemic

The lockdown and other measures also brought some benefits to health. Seemingly low levels of pollution have helped in improving the lives of asthmatic patients and those suffering allergies. Rivers appear to have become cleaner giving the public a chance to drink and bathe in clean water, thereby reducing diarrhea and other waterborne diseases. Public awareness on the prevention and control of infectious diseases has increased. Incidence of food and water-borne diseases may have decreased due to improved hand hygiene and frequent sanitization. Reduced visits to hospitals by people may have reduced Hospital Acquired Infections (HAIs). Decreased number of vehicles on the road may have reduced road accidents. New lifestyle norms such as working from home, online meetings, conferences, teleconsultations and telemedicine have meant less travel and therefore less physical strain and tiredness.[16] All these benefits have indirectly contributed to benefits for patients and the healthcare system.

Summary and Conclusion

The collateral effects on health and healthcare during the pandemic have been felt on healthcare recipients, workers, systems, and the public. COVID-19 has taught many lessons regarding healthcare preparedness and how a pandemic can upset healthcare priorities of countries.

1. As we move through this and other pandemics, more support is needed for healthcare systems and workers, especially at the primary and secondary care level.[17,18]
2. With the eyes of the world focused on the pandemic and the ensuing collateral effects, there is a distinct opportunity for garnering sustained mentoring, finance, and resources to improve the healthcare system and thereby health itself.[19] This in turn will benefit all healthcare workers in their call of duty.
3. There is a dire need for countries to plan cost-effective and sustainable strategies to minimize collateral healthcare effects, especially as the pandemic continues.

4. Implementing strategies for involving primary health care centers and community health strategies would hopefully help to combat not just future epidemics but improve the healthcare system and public health as a whole.[20]
5. Most importantly, it is hoped that recognizing the collateral effects and ethical challenges posed to healthcare systems, would spur the effort to support healthcare workers, especially those working in primary and secondary healthcare. These frontline warriors of healthcare who face tremendous challenges in their line of duty need to be supported in a sustained manner by our policy makers and public during and beyond the pandemic.

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Conflicts of interest

There are no conflicts of interest.

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