

Chapter 3

Impact of Lockdown on Medical Research: My Perspective

Natarajan Kannan ^{1,*}

¹Research Scholar, L.U.C., Malaysia, Professor & Head, Department of Oral Medicine & Radiology, Narayana Dental College and Hospital, Nellore, Andhra Pradesh, India
Email: dentkan1@gmail.com

Abstract

Pandemics like those created by COVID 19 or Corona virus are unexpected and unprecedented situations which are likely to severely disrupt the normal routine of life and necessitate disruption of normal protocols and creation of newer ways of dealing with such situations. Health care related research works in particular is dependent on utilization of various resources like inflow of patients, handling of the patients, investigations, therapeutic agents and follow up of the patients. This chapter outlines some of the difficulties which were faced in carrying out research during the COVID 19 pandemic, in the form of transport problems, administrative directives from regulatory authorities, enhanced precautions which were necessitated to be implemented, while handling the patients, financial implications and other aspects which influenced the progress of the research work during this period. Awareness of these problems it is anticipated will enable future research workers and their supervisors in planning to be prepared to handle such situations in a more effective manner by better collaborative efforts

Introduction

Research work as such involves various methodologies and steps and possibilities of hurdles and difficulties in carrying out these activities are an expected part of the academic journey of a research scholar. Preparing the Gantt Chart and timelines provide guidelines for the research scholars and the supervisors to identify the progress of the work and to become aware of the delays if any and implementing remedial measures for resuming the progress of the research.

Research work planning also involves identifying possible difficulties which may possibly occur and ways and means to avoid or circumvent these problems.

© Author, 2021

Natarajan Kannan, *Impact of Lockdown on Medical Research: My Perspective*,
<https://doi.org/10.34256/ioriip2113>

Research Supervisors and the monitoring committee are expected to guide the research scholars about possible pitfalls and ways and means of overcoming them.

Unusual and unprecedented conditions of the magnitude of conditions like the COVID 19 pandemic however are not possible to anticipate and can really throw a spanner in the progress of the research work.

This chapter will be focusing on problems faced during health care related research work on a personal basis and in general on account of COVID 19 pandemic situation.

Timeline of COVID 19 Pandemic, in India January-September 2020^{2,3}

Timeline	Decisions Taken
30 th January 2020: 1 st Corona Positive Case	First Case of COVID-19
31 st January 2020 – 1 st February, 2020	Medical evacuation of 637 Indians & 7 Maldivians from Wuhan, China, the epicenter of Coronavirus
15 th February, 2020 - 03 Positive Cases	All incoming travelers, including Indian nationals from COVID-19 nations – China, Italy, Iran, Republic of Korea, France, Spain and Germany – shall be quarantined for a minimum of 14 days.
6 th March, 2020- 31 Positive Cases	Universal Screening at Indian Airports
10 th March, 2020-50 Positive Cases, 1 death reported	India's 1 st COVID-19 Fatality in Bengaluru “Holi” Festivals of Colors – Cancelled
13 th March, 2020, 81 Positive Cases, 1Death	India quarantine itself from World. Suspends all existing visas except Diplomatic/ UN/ Official/ employment and project visas. Visa free travel facility granted to OCI card holders, kept in abeyance till April 15 th 2020
14 th March to 16 th March, 2020 Positive Cases 118, Deaths 02	Central Government decided to treat COVID-19 as “Notified Disaster” Various States have placed Residents under travel, work & movement restrictions until March 31 in 75 districts across the country, including in major cities such as the capital New Delhi, Mumbai, Bangalore, Chennai, Hyderabad, and Kolkata. Schools & Universities shut – Entertainment Industry Suspended shootings, - Padma Awards Ceremonies postponed – Movie releases postponed – BCCI Postponed Domestic Cricket tournaments – Examinations postponed – Government instructed administration not to grant permissions for Big Events or Gatherings Indian evacuates 211 students & 7 others from Milan & 236 from Iran. All Quarantined

Impact of Lockdown on Medical Research: My Perspective

	<p>-Ministry of Health, Government of India along with State Governments started working on increasing Bed capacities in various hospitals to tackle sudden increase number of cases</p> <p>-Private Hospitals asked to reserve beds for isolation</p> <p>-Indian Council of Medical Research (ICMR) allowed private laboratories to conduct COVID-19 tests with the restriction that it should be advised by concerned doctor along with capping of price of Rs 4500/- per test</p> <p>-Made 111 labs operational with a per week testing capacity of 60,000 to 70,000 and around 60 more private labs are in the process of being approved</p> <p>-Some Private Laboratories offered that they won't charge anything, if test kits given free of cost.</p>
17th March, 2020 Positive Cases – 137, Deaths - 03	<p>All Malls, Multiplexes, Museums, Gyms, Pubs & Restaurants, Zoos, Public places, Religious places and closed down till further notice</p> <p>Courts – Supreme Courts, High Courts and District Courts ordered to take up only urgent and stay related matters. □ All other cases to be taken up after 31st March, 2020.</p> <p>A COVID-19 Economic Response Task Force formed</p> <p>Accredited private labs allowed to test for COVID-19</p> <p>Private sector to allow employees to work from home wherever feasible</p> <p>Students advised to stay at home.</p> <p>Online education to be promoted</p> <p>Ensure Social distancing of 1 meter</p> <p>Extended travel ban beyond affected countries and prohibited entry of all travelers including Indians from 14 days isolation for those European Union, European Free Trade Association, Turkey and United Kingdom wef 18th March</p> <p>Compulsory quarantine for minimum of 14 days for those coming UAE, Qatar, Oman and Kuwait</p>
18 th to 21 st March, 2020 Positive Cases 283, Deaths- 04	<p>Many Districts in various states Locked down completely.</p> <p>Exempt from the order are essential services such as grocery stores, hospitals, pharmacies, petrol stations, telecoms, postal services, food delivery restaurants</p> <p>Government of India announced No international flights will be allowed to land from 22nd March, 2020 onwards</p> <p>Few states banned public transport</p>
22nd March, 2020 Positive Cases – 360, Deaths - 07	<p>14- Hour voluntary public curfew 7:00 am to 9:00 pm – Highly Successful</p> <p>Government asks Public and Private Hospitals and other medical institutions to set aside beds as cases rises</p> <p>3700 hundred railway trains cancelled</p> <p>Metro Railways cancelled operations</p> <p>Display of public solidarity expressing thanks and motivating Health care workers by applauding, clapping, ringing bells and blowing conch shells, from doorways, balconies, roofs, roads or wherever by everyone at 5:00 pm – Whole country participated</p>

Impact of Lockdown on Medical Research: My Perspective

	<p>Restrictions were extended across large parts of the country late Sunday, effectively forcing millions of workers in India's huge technology and financial sector to work from home for the rest of the month.</p> <p>Railways cancelled all passenger train services across its vast network (760 million km that carried 8 billion passengers in 2018-19) until 31st March, 2020. □ Adequate arrangements were made for the passengers, who have commenced their journey during the travel and at their destinations</p>
23rd March, 2020 Positive Cases – 434, Deaths – 09	<p>India announced sudden lockdown for 21 days till 15th April, 2020</p> <p>- Curfew imposed in the state of Punjab</p>
23rd March, 2020 Positive Cases – 434, Deaths – 09	<p>1st Indian testing Kit for COVID-19 designed by private laboratories approved by ICMR, India</p> <p>- Cost Rs. 1200/- Test can be done in 2.5 hours</p> <p>- Advisory to all States/Union Territories to use Cess fund for welfare of construction workers about Rs 52,000 Crores</p>
25 th March	Nationwide Lockdown Announced till April 14 th 2021
26th March, 2020 Positive Cases – 694, Deaths – 16	<p>Caravans of Migrant Workers to reach their Native places.</p> <p>Central Government announced economic package worth Rs 1.70 lakh crore as relief for various sectors, especially the poor and vulnerable ones to help them tide over the coronavirus crisis</p>
29th March, 2020 Positive Cases – 1024, Deaths - 27	Central Government set 11 highly empowered groups for ensuring a comprehensive and integrated response to COVID-19 and to formulate plans & to take all steps necessary for their time bound implementation and to plan strategy for post lock down period.
30th March, 2020 Positive Cases – 5000, Deaths – 33	<p>Nizamuddin Markaz, International Headquarters of Tablighi Jamaat, emerges as COVID 19 Hotspot</p> <p>Ministry of Health and Family Welfare (MOHFW) issued training resources for COVID-19 Management</p>
5 th April 2020	PM Modi's call for Solidarity with Health care workers
6 th April 2020	Death Toll Crosses 100 Mark
14 th April 2020	Lockdown Extended till May 3rd
29 th April 2020,	1000 Confirmed Deaths
1 st May 2020	<p>Lockdown Extended 2 weeks</p> <p>Shramik Trains for Migrant Workers started</p> <p>Divides districts into red, orange and green zones</p>
7 th May 2020	1 st Phase of Vande Bharat Mission to Evacuate Indians Stranded Abroad
12 th – 16 th May 2020	Atma Nirbhar Packages Announced
17 th May 2020	MHA Extends Lockdown till 31 st May, Allows Inter State Movement of vehicles
19 th May 2020	COVID 19 cases crosses One Lakh in India
5 th June 2020	WHO Advises use of Face Masks by Public
8 th June 2020 2,50,000 COVID-19	Unlock 1.0 Guidelines Issued, Re Opening of Hotels, Restaurants, Places of Worship & Malls

cases and 7200 deaths	
12 th June 2020	More than 3 Lakh COVID 19 Cases
27 th June 2020	More than 5 Lakh COVID Cases
1 st July 2020	Unlock 2.0 Guidelines Issued
6 th July 2020	6.97 Lakh COVID 19 Cases
15 th July 2020	Phase 1 Clinical Trials of Covaxin in India
17 th July 2020	International Commercial Flights Resume
COVID19 Cases cross 10 Lakh, Death Toll 25,600	
1 st August 2020	Unlock 3.0 Guidelines Issued
26 th August 2020	Covishield Vaccine Trials begin
29 th August 2020	Unlock 4.0 Guidelines Issued
30 th August 2020	India reports World wide record for daily new cases of 78,761 infections.
7 th September 2020,	41.13 lakh confirmed COVID19 Cases
16 th September 2020,	50 lakh confirmed COVID19 Cases
22 nd September 2020,	1 Lakh Recoveries in a day with recovery rate to 80.86 per cent
27 th September 2020	India's Covid-19 tally goes past 60 lakh, with total recoveries crossing the 50 lakh milestone
30 th September 2020	Unlock 5.0 Guidelines Issued
26 th January 2021	Total COVID Cases 10, 677, 710; Recovered 10,345,985; Deaths 1,53,624

My thesis is a double blind, multicentric study which entails my regular travel to the cancer hospitals for collection of data with the help of my research assistants & study supervisors at the centers & compilation of the data collected, their scoring, analysis, and interpretation.

Sudden imposition of lockdown across the country was like sudden Brake applied to the smooth flow of work, requiring gathering of all possible resources for completing the scheduled work. This had many pitfalls and encumbrances which I will be narrating in the follow up.

Fear of contracting COVID 19 from the cancer patients was imminent on the minds of my research assistants and also their supervisors, compounded by restriction of their movements by police authorities.

Lack of clear guidelines along with various theories and myths propagated like nobody's business using the various apps and social media created a situation of panic even among the well-educated including doctors who were all highly scared of the situation.

Concern and fear among their family members about their wellbeing and whether they could return safely if they went about treating patients created a terrible situation for the healthcare givers.

Insufficient & prohibitively costly personal protection equipment was adding to their woes with circulating news of a number of healthcare workers being adversely affected in spite of using them doing the rounds putting many of the healthcare workers in a near panic and desperate situation.

Similarity between COVID 19 symptoms and those of conditions like common cold, sinusitis and pharyngitis were giving nightmares to the healthcare workers as well as the patients, with people not knowing how to react and whether they should get themselves tested & if yes, then where and what would happen to them in case they got tested and were found positive.

Confusion and chaos prevailed in the minds of the police and state administrative authorities as to who should be allowed and who should be prevented from moving freely. Since the guidelines were gradually being evolved, even the administrative authorities and health authorities were having a lot of confusion which was compounding the situation.

Gradual evolving of the guidelines and awareness among the administrative and healthcare authorities as to the urgent need for addressing the healthcare needs of the cancer patients helped in slowly improving the situation.

Communication with the cancer hospital authorities and my research work supervisors therein, resulted in their taking responsibility for carrying out the work and keeping the records for me along with their developing protocols for handling the COVID 19 patients, helped a lot in easing the situation for me.

Cancer patients who were undergoing treatment, were having a lot of problem in reaching the cancer hospitals and receiving their due treatments owing to movement restrictions and problem of lack of availability of suitable public transport which was aggravated by fear of contracting the COVID 19 infection during their travels.

High cost of private transport and difficulty of the vehicle owners and drivers in getting passes for transporting the patients was also a major factor affecting the cancer patients who could afford the private vehicles. These were major problems resulting in difficulty in recruiting the cancer patients for the control group and the study group.

Most of the cancer patients in Andhra Pradesh belong to the lower socio-economic strata and receive the subsidized cancer treatment under Arogyasri Scheme of the state government.

Inability of the state government employees to reach their offices along with closing down of the offices by the government as a part of the lockdown measures prevented them from being able to verify the documents required to give authorization for the reimbursement under the Arogyasri scheme resulting in withholding of the cancer treatments for the patients.

In the offices, where half or one third of the staff were permitted to be on duty, only half or one third of the work could be done and the rest of the work, could be completed only when their counterparts resumed their half of the duty.

In some of the centers, malfunctioning of the thumb print scanners and difficulty arising due to closure of Xerox centers where the necessary documents could be Xeroxed were also major problems for the cancer patients in getting Arogyasri

authorization done. This was also one of the major limitations in recruiting the patients.

The material which was to be supplied to the control arm patients as a part of the standard protocol was manufactured by a well-known Indian company which had to import one of the major ingredients.

Lack of international flights and other modes of cargo transport as well difficulties in custom clearance, difficulties in transportation of the ingredients to the manufacturing factory were major procurement problems for the manufacturing company.

Difficulty of getting the workers and finally transporting the finished product to the company dealers resulted in severe paucity of the material which also resulted in delaying the research study and increasing of the suffering of the cancer patients, even though we had paid for the material much in advance.

Most of the research centers where the samples could be analyzed were closed down during the lockdown preventing the samples from getting analyzed. Some of the lab assistants and supervisors themselves were down with COVID 19 infection forcing them to be under quarantine.

Lack of postal and courier services were also a major problem in sending the research samples to the research labs for testing and getting the test results from them. Research labs also had a major problem in getting their equipment serviced which caused them difficulty in getting calibration of the equipment and difficulty in getting the necessary research reagents for carrying out the tests.

My research was self-funded, and I was not receiving full salary during the lockdown, which was affecting my ability to carry out the research work effectively. However, one good outcome of the lockdown was the ample time available for carrying out literature search and literature review. Closing down of the offices of the network service providers was again a problem since it affected network connectivity and lack of internet was a major problem in effectively carrying out the research work.

The lockdown helped in doing a lot of introspection and doing a critical self-appraisal and ensuring better quality of the research work.

Conclusions

Having good collaboration and regular contact with entire research team, planning for contingencies and ways of working with the existing problems can help the research scholars to effectively complete their research work. Since research in health care setting involves patients, we also need to think from patient perspective and appropriately guide them and take their cooperation to successfully carry out the research.

References

- [1] James G. Adams, Ron M. Walls, (2020) Supporting the Health Care Workforce During the COVID -19 Global Epidemic JAMA.323(15):1439-

1440

- [2] Taneja Neeraj Alam A., Patnaik R, Taneja T, B Arun, R Vikram Singh, D Harish Rai, Miglani R, Feb (2021). Sudden Lockdown & Unseen Challenges in India due to COVID 19-An Outbreak Analysis. Disaster Advances, Vol. 14 (2), 73-81.
- [3] Abhshek De (2020) Coronavirus India Timeline: Tracking Crucial Moments of COVID 19 Pandemic in the Country the Indian Express October 1st New Delhi Edition