

Internship Training

at

International Institute of Health Management and Research

Teleconsultation for COVID-19: Opportunities and Challenges for Physicians

by

Dr. Fatima Rashid Ali Sheikh

Enroll No.PG/19/030

Under the guidance of

Dr. Preetha GS

Post Graduate Diploma in Hospital & Health Management

2019-21



International Institute of Health Management Research
New Delhi

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New Delhi

This Certificate is awarded to

Dr. Fatima Rashid Ali Sheikh

In recognition of having successfully completed her
internship in

Paras Global Hospital, Darbhanga

and has successfully completed her project on

Teleconsultation for Covid-19: Opportunities and Challenges for Physicians

on 10.06.21

Organization; Paras Global Hospital, Darbhanga

She comes across as a committed, sincere
& Diligent person who has a strong drive and zeal for
learning.

We wish her all the best for future endeavors.



DGM , Manoj Kumar

Paras Global Hospital, Darbhanga

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Fatima Rashid Ali Sheikh** student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at **Paras Global Hospital, Darbhanga** from 1st March 2021 to 30th May 2021.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific, and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all his/her future endeavors.

Mrs. Divya Aggarwal

Associate Dean, Academic and Student Affairs

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Mentor

IIHMR, New Delhi

Certificate of Approval

The following dissertation titled is hereby approved as a certified study “**Teleconsultation for COVID-19: Opportunities and Challenges for Physicians**” in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed, or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name

Signature

Dr. Anandhi Ramachandran

Dr. Vinay Tripathi

Mr. Ajay Sood

Certificate from Dissertation Advisory Committee

This is to certify that **Dr. Fatima Rashid Ali Sheikh** a postgraduate student of the **PGDM (Hospital & Health Management)** has worked under our guidance and supervision. She is submitting this dissertation titled **Teleconsultation for COVID-19: Opportunities and Challenges for Physicians** at Paras Global Hospital, Darbhanga in partial fulfillment of the requirements for the award of the **PGDM (Hospital & Health Management)**.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report, or book.

Mentor Name: Dr. Preetha GS

Professor and Dean Research

IIHMR DELHI



DGM, Manoj Kumar

Organization: Paras Global Hospital, Darbhanga Bihar.

**INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,
NEW DELHI**

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Teleconsultation for COVID-19: Opportunities and Challenges for Physicians** submitted by **Dr. Fatima Rashid Ali Sheikh Enrollment no. PG/19/030** under the supervision of Dr. Preetha G.S for award of PGDM (Hospital & Health Management) of the Institute carried out during the period from **1st March 2021 to 30th May 2021** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.



Signature : Dr. Fatima Rashid Ali

Date: June, 2021

FEEDBACK FORM

Name of the student- Dr. Fatima Rashid Ali sheikh

Dissertation Organization: Paras Global Hospital, Darbhanga

Area of Dissertation: Quality improvement research

Attendance: Adequate

Objectives achieved: Completed her thesis and other tasks allotted to her on time.

Deliverables: Completed successfully.

Strengths: Team worker, disciplined, fast learner, good networking and soft skills and highly motivated professional

Suggestion for Improvement: Enhance the domain knowledge by implementing the experience and educational expertise.

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

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DGM, Manoj Kumar

Date: 10-06-2021

Place: Darbhanga, Bihar

ABSTRACT

“Teleconsultation for COVID-19: Opportunities and Challenges for Physicians”

The pandemic of COVID-19 is a healthcare emergency of international concern and was declared as pandemic by WHO on 12th march 2020, Since then its raging relentlessly across the country. This has put a tremendous strain on already frail and overburdened Indian healthcare system and aggravated concern in the accessibility to healthcare by common mass. Many techniques to control the spread of the infirmity have been utilized all through the planet like social isolation, extreme quarantine measures, and contact tracing. Regardless, these practices may not be totally effective to battle COVID-19 to meet the new patient care demands. A wide degree of modernized headways can be utilized to upgrade these general thriving structures. Telemedicine practices in India have step by step and dependably acquired a balance. This field has filled incredibly in India as of late. The pandemic has started developing the utilization of telehealth for delivery of healthcare to community. The rise of COVID-19 implies an essential second in the extension of uses and utilization of telehealth. In this article an assessment was coordinated to list the technical and clinical challenges and opportunities looked at by the Physicians in teleconsultation of SARS2 Covid-19 patients. We need to tap on all resources for healthcare delivery and use this adversity of pandemic as an opportunity to build on our capacity and expertise in the area of Telemedicine.

Keywords-COVID-19, Teleconsultation, Pandemic, Physician

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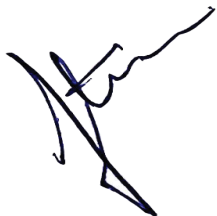
As three months of dissertation period come to an end, I would like to thank everyone, without whose contributions, this project would have been impossible to complete, all those who helped me get an enriching experience.

First of all, I would like to thank the almighty God for showering his blessings and for being the wellspring of direction, wisdom and perseverance throughout the study, without which the study could not have been completed.

I am obliged to my mentor **Dr. Preetha GS**, Dean Researcher, IIMR, Delhi for her constant encouragement, support, continuous motivation, boundless cooperation, suggestions, guidance and belief which helped me to finish each part of this venture.

I would also like to thank all my teachers without their support, my experience and my knowledge would have remained incomplete.

The completion of my summer training would not have been possible without tireless contribution and consistence of my friends and family.



Dr. Fatima Rashid Ali Sheikh

Date: June, 2021

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III. List of Abbreviations

- a. ISRO-Indian space research organization
- b. SARS2-severe acute respiratory syndrome 2
- c. ICU-Intensive care unit
- d. NCR- National capital region
- e. EHR-Electronic health record
- f. CDAC-Centre for development of advanced computing
- g. SPSS-Statistical Package for the social sciences
- h. ADSL-Asymmetric digital subscriber line
- i. OOOPE-out of pocket expenditure
- j. NDH-National digital health

Internship Report

Paras Healthcare was established in 2006, with the mission of providing specialized tertiary medical care services at affordable prices to underserved communities across the country. This private healthcare provider stands apart from others in its vision of making healthcare for all a reality for ordinary people in rural and remote regions. Each of its initiative is based on three tenets of healthcare- Affordability, Accessibility & Quality.

Vision: Paras Hospitals aspires to be the preferred healthcare partner for the community. We will initiate all our endeavors based on the 3 tenets of healthcare – Affordability, Accessibility and Quality

Mission: Our mission is to provide the best quality medical service with utmost responsibility and compassion. Our management ensures that every patient gets the best possible treatment whether preventive or diagnostic.

Paras mainly adheres to its three tenets of healthcare – present accessibility of healthcare in the region, presence of affordable healthcare at the location and last existence of a specialized quality healthcare provider. If any of the aspects can be addressed, Paras Healthcare participates in providing exceptional healthcare facilities that can touch the lives of millions and improve the health infra of the state/region.

Paras Healthcare is a leader in establishing specialized hospitals in places that lack access to healthcare, specifically super specialty tertiary care.

INTRODUCTION

“Tele” is a Greek word meaning “distance” and *“mederi”* is a Latin word meaning “to heal”. Time magazine called telemedicine “healing by wire”. Telemedicine is here to stay. Telemedicine has a variety of utilizations in persistent consideration, schooling, examination, organization, and general wellbeing. (2) Around the world, individuals living in provincial and distant regions battle to get to ideal, good-quality specialty medical care. Inhabitants of these spaces regularly have inadequate admittance to specialty medical care, principally in light of the fact that expert doctors are in the urban areas because of advanced technology or availability of full resources to practice and of course for a better lifestyle. Telemedicine can possibly connect this distance and work with medical care in these far-off regions.

In India, giving face-to-face medical services is testing, especially given the enormous geological distances and restricted assets. One of the significant benefits of telemedicine can be for saving expense and exertion, particularly for provincial patients, as they need not travel significant distances for acquiring discussion and treatment. In this sort of situation, telemedicine can give an ideal answer for not simply giving ideal and quicker access. In this sort of situation, telemedicine can give an ideal answer for not simply giving good and quicker access. It would likewise decrease the monetary expenses related to movement. Telemedicine can assume an especially significant part in situations where there is no requirement for the patient to actually see the RMP (or other clinical experts), e.g., for standard, normal registration, or constant observing. Telemedicine can reduce the burden on secondary hospitals. With telemedicine, there is a higher probability of support of records and documentation thus limits the probability of passing up exhortation from the specialist and other medical services staff. Then again, the specialist has a precise record of the counsel given through teleconsultation. Composed documentation expands the legitimate assurance of the two players. Telemedicine gives patient security, just as well-being laborers' well-being particularly in circumstances where there is the danger of infectious contaminations. A few advances can be utilized in telemedicine, which can assist patients with following their medicine regimens and deal with their sicknesses better. Disasters and pandemics present interesting difficulties to

giving medical services. Telemedicine cannot be the complete solution for the pandemic but it plays an important role in controlling the spread of disease by providing virtual consultations and instructions. A Doctor or a healthcare provider can follow his duty without getting exposed to the infections. Telemedicine practice can forestall the transmission of irresistible infections decreasing the dangers to both medical services laborers and patients. It can give fast admittance to clinical specialists who may not be quickly accessible face to face. Moreover, it makes accessible additional functioning hands to give actual consideration to the separate wellbeing foundations. Hence, the planning done and resources used in telemedicine were all put up together for patients with Covid19.

Telemedicine practices in India have gradually and consistently acquired traction. The means were taken by ISRO, Department of Information Technology (DIT), Ministry of External Affairs, Ministry of Health and Family Welfare, and the state governments assumed an essential part in the improvement of telemedicine administrations in India.

The world's biggest-ever pandemic of Covid-19, an exceptionally irresistible sickness with dramatically developing quantities of cases around the world, even the world's best healthcare services face an immense task. In India, the World Health Organization prescribes a specialist to-populace proportion of 1:1000, however, the genuine proportion is simply 0.62:1000. With the flare-up of COVID-19, this low-specialist to-population proportion turns out to be significantly seriously concerning. There was no guideline or rules on the acts of telemedicine in India up to this point, and the distinctions in the enactment and the absence of lucidity in the guidelines represented a peril to the two specialists and their patients. However, Telemedicine has become a hero in the COVID-19 flare upon.

REVIEW OF LITERATURE

In the wake of COVID-19, the underlying scramble to secure medical clinics and centers and change to a predominantly far off care model is currently offering a route to a more estimated appraisal of medical service's needs, assessment of the consideration conveyance models utilizing telehealth advancements as empowering influences, and a drawn-out endurance technique for clinics and wellbeing frameworks. Virtualization of care will infiltrate further into medical care administrations, however, there will be limits.

Constant, eye to eye experiences among specialists and patients through virtual consultations have progressively become the standard among those with cell phones and gadgets with cameras. "Low-contact" and "contactless" encounters all through the consideration venture have become the option for COVID-19. Basic consideration doctors, driven by precautionary measures and the need to manage expanded jobs, have accepted tele-ICU models. As clinicians and patients become accustomed to telemedicine, any remaining types of virtual consideration are set to infiltrate further into medical care administrations, explicitly low-sharpness and protection care that is wandering [4]

In-person care encounters have been expanded/supplanted by telehealth models like tele stroke, teleradiology, and telepsychiatry. In another age of computerized wellbeing, new companies have created natural cell phone applications to convey these administrations and incorporate them consistently with center EHR stages for booking and different capacities. High risk populations with comorbidities with COVID-19 has a limited access to Telemedicine as they need close observation. Telemedicine can be utilized to deal with constant illnesses like bronchial asthma, hypertension, and diabetes mellitus on a continuous premise, especially when social disconnection is empowered. People with these conditions are more defenseless against COVID-19, and medication adherence and illness the executives are compelling approaches to decrease the sickness's seriousness. Telemedicine can be a protected and advantageous approach to get clinical consideration. In a 2015 Cochrane deliberate investigation, scientists thought about the impact of telehealth, which includes surveillance or video conferencing, mobile visits for chronic

diseases like diabetes and congestive heart failure, and observed comparable health effects in both cases [5].

With the development of COVID-19, teleconsultation arrangements, effectively utilized in past scourges like Ebola or SARS, have supported and acquired much greater permeability. Teleconsultation can tackle the fundamental worry of diminishing the degree of contact among individuals to prevent cross-contamination and stay away from the spreading of the virus. In any case, the objective of teleconsultation is likewise to keep giving patients (contaminated by COVID-19 or not) clinical help. In reality, all people with other well-being pathologies should keep approaching medical care. Teleconsultation was principally used to sort COVID-19 patients and recognize those tainted, some of whom have suspect manifestations like fever, body ache, respiratory uneasiness, and laziness. Accordingly, the point is to rapidly recognize and disconnect COVID-19 patients and coordinate their hospitalization in emergencies.[6] Health experts in numerous nations have executed telemedicine client rules to boost individuals to utilize such administrations during the COVID-19 pandemic. In the USA, the utilization of Skype, Zoom, Google Hangouts, Apple, and telehealth visits is approved and repaid at a similar rate as eye-to-eye visits since March 1, 2020. In Italy, a public procedure for advancing the selection of teleconsultation is as yet absent. In any case, some local medical care establishments offer explicit computerized administrations to help patients during the COVID-19 pandemic. In France, patients can be repaid when utilizing telemedicine arrangements since September 2018. In March 2020, because of the COVID 19 emergency, the French government provided a declaration, permitting French Health Insurance to cover any clinical teleconsultation. In China, general wellbeing specialists urge residents to accept distant clinical benefits. The two most famous ones (We Doctor and haodf.com) propose for nothing teleconsultation for patients with COVID-19 and counsel in regards to the isolate. In the UK, telemedicine is free at the place of conveyance, and numerous private health care coverage organizations remember this assistance for their standard offer. Thus, numerous organizations proposing teleconsultation administrations have arisen, featuring the expected advantages of such wellbeing tools.[7]

Telemedicine rehearses give clinical data and empower conference and conversation between medical care suppliers and patients paying little heed to where the patient is found, decreasing travel costs, saving time, bringing down clinical expenses, and making expert specialists more open to the overall population without meddling with their regular obligations. The Medical Council of India (MCI) Board of Governors has embraced the "Telemedicine Practice Guidelines," which incorporate both overall norms and a reasonable reason for telemedicine. While the overall norms will apply to each

approaching proposition, the last bright lights the brief need in the fallout of the COVID-19 pandemic. [3] Accordingly, the equivalent has been incorporated as a change to the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002, and has been endorsed by the Ministry of Health and Family Welfare, Government of India authoritatively on March 25, 2020[8].

Simultaneous or offbeat counsel with a specialist and other medical care experts by utilizing data and correspondence innovation (i.e., computerized stage) and by disposing of the geological distance and travel to the emergency clinics is called teleconsultation. One can look for teleconsultation from master medical care experts from any piece of the world by utilizing cutting edge innovation and by covering off the requirement for driving truly.

'eSanjeevani', is an electronic far-reaching telemedicine arrangement. It is demonstrated on 'Sanjeevani' CDAC Mohali's' leader incorporated telemedicine arrangement. 'eSanjeevani' broadens the compass of specific medical care administrations to the majority in both provincial zones and confined networks. Other than upgrading the nature of clinical benefits, tending to issues about lopsided appropriation and lack of infrastructural just as HR, eSanjeevani additionally expects to make medical care administrations impartial by spanning the computerized split that exists between the metropolitan versus provincial, rich versus poor, and so on eSanjeevani can likewise be utilized to give clinical instruction to assistants, individuals across Various Common Service Centers (CSCs), etc. [9].

In everyday terms, for a teleconsultation, it is important to have a web association, a reasonable PC with sound and video abilities, and transmission gadgets. Quick and stable web and broadband associations (ADSL, fiber optic, link, 4G or comparable; at any rate 1MB/300kb) are suggested. It is likewise important to comprehend explicit programming (for example electronic Teleconsultations during a pandemic – Factsheet – More data on Coronavirus Disease (COVID-19) meeting devices, like WebEx, Skype, Zoom, Illuminate, MS Teams, and FaceTime, among others) that permits telepresence and to have an internet service that offers help with the base quality required. Having a telephone, in the event that the video gathering correspondence is intruded, is energetically suggested. At long last, it is significant not to have different applications open that meddle with the speed of the web association or communication.[8]

Physician burnout is a universal dilemma that is seen in healthcare professionals, particularly physicians and is characterized by emotional exhaustion, depersonalization, and a feeling of low personal accomplishment. There are many factors which leads to physician burnout or stress and impacts physicians as well as patient's health outcome. It

overall affects the whole healthcare system. Physicians face everyday challenges in giving consideration to their patients, and burnout might be from expanded feelings of anxiety in exhausted doctors. Maintaining patient record, seeing over administrative work related to patient-doctor services is exhausting. This in return asks for more energy and imbalances the focus from clinical aspect thus hampering the quality of treatment. This can be tended to by the precise use of proof-based mediations, including yet not restricted to bunch intercessions, care preparing, self-assuredness preparing, worked with conversation gatherings, and advancing a sound workplace. One way telemedicine can arrive at its maximum capacity is the point at which it's offered as an advantage in a wellbeing plan. Plans can teach and urge enrollees to utilize telemedicine or house calls for forefront care. The plans would then be able to use the information or experience of clinicians to help patients get to or explore extra consideration if important. Some more groundbreaking business-supported plans and individual plans are giving empowering indications that this is beginning to occur. In any case, for an assortment of reasons, the supplier's ought to in a perfect world be in-network wellbeing frameworks and clinicians as opposed to virtualist unaffiliated with a neighborhood supplier or wellbeing framework. Another methodology with the guarantee is wellbeing frameworks utilizing telemedicine abilities as help that supplements their customary wellbeing administrations. [9] Telemedicine can be an effective way to deliver some aspects of behavioral health services. That's a clinical area where telemedicine can do wonders and have a positive impact on health as well as on the pocket. In the pandemic era mental health has been affected tremendously because of the disease as well as because of the lifestyle amendments followed. In behavioral health maintenance and treatment, telemedicine has played an important role by acting as a gate keeper at hospitals and decreasing the emergency room visits and hospitalization. The accessibility of telemedicine reduces or keeps away from any apparent disgrace appended to face to face visits with clinicians and can build the predictable nature of and consistence with conduct behavioral health treatment programs [10].

AIMS & OBJECTIVES

AIM

To review how Telemedicine is used internationally and nationally and to identify the opportunities and challenges perceived by physicians in teleconsultation of SARS2 covid19 patients.

OBJECTIVES

- To survey late proportions of telemedicine embraced during the pandemic and their effect on general wellbeing in lower-center pay nation like India.
- To enumerate the challenges and opportunities faced by physicians in teleconsultation of SARS2 COVID-19 patients.

METHODOLOGY

It is a cross sectional study using primary and secondary data.

Literature review was done of secondary data. And a Cross-sectional Questionnaire-based study has been conducted among the physician (n=40) of hospitals in Delhi-NCR who are consulting Pan India to know the opportunities and challenges they faced during teleconsultation of COVID-19 patients. The study was conducted in the month of April-May 2021. The data were analyzed using the SPSS package and Microsoft excel 2020.

- Research Tool - Cross-Sectional Questionnaire Based Study
- Sample Size: 40
- Target population: General Physicians of Delhi NCR
- Time of Study: April- May 2021
- Research procedure – Data was collected through google form link and analyzed by using the SPSS package and Microsoft Excel Package 2020.

Aspect covered in questionnaire are as follows:

- Technical challenges
- Clinical challenges
- Burnouts
- Pros of teleconsultation

Research Problem

What are the major challenges that come with teleconsultation while dealing with Covid-19 patients?

Inclusion criteria

Physicians of a same private organization consulting only SARS2 COVID19 diagnosed patients via teleconsultation.

Exclusion Criteria

Physicians working in government set up and consulting Non COVID-19 patients were excluded.

Ethical Consideration

Informed consent was obtained from all the voluntary study participants. No personal identifiers like name,age,sex,address was used. A unique ID was given to each participant. Data is kept under my custody and no information will be shared. Appropriate measures were taken to ensure data security, privacy, and confidentiality. Data is only used to analyze the objective of the study for internship report.

**Please refer Consent form in the Annexures.*

RESULTS AND OBSERVATIONS

I. Review of Telemedicine measures in India.

- The Indian Space Research Organization (ISRO) upheld the execution of telemedicine in India in 2001. A couple telemedicine programs have been begun in different bits of the world in a joint exertion with the Ministry of Electronics and Information Technology (MEITY) and the Ministry of Health and Family Welfare (MoHFW).
- The National Health Policy of 2017 required the limitless usage of media advancements to improve clinical benefits system outreach.
- The Ayushman Bharat Telemedicine Guidelines for Health and Wellness Centers (HWC) were given in 2019 to use Information Communication Technologies (ICT) to interface HCW with Medical Colleges.
- MoHFW, Government of India conveyed the 'Telemedicine Practice Guidelines' in March 2020 to give sensible commitments to the experts in understanding the most extreme limit of telemedicine for better clinical consideration transport in the result of the COVID-19 pandemic.
- The principles are based on the Registered Medical Practitioner (RMP) characterized as a person who has evaluated the State Medical Register or the Indian Medical Register under the Indian Medical Council (IMC) Act 1956.
 - Private players like Apollo home care-SIAH, antra by MAX hospital, 1mg, Practo, docon etc. played a significant role in providing teleconsultation services through physicians on a very affordable rate. Thus, penetrating deep in providing the healthcare services to mild to moderate cases mostly. These platforms also provided other healthcare services like online medication ordering and delivery, online booking of investigations or home sampling.

Covid-19 National Teleconsultation Center

Last Updated On : 30 Apr 2021

COVID-19 National Teleconsultation Center, AIIMS New Delhi

COVID-19 National Teleconsultation Center (CoNTeC) has been started in AIIMS, New Delhi.

CoNTeC AIIMS Helpline Number – 9115444155

Following are the services provided :-

1. Consultancy to doctors treating COVID-19 patients.
2. Providing appointments for Teleconsultations.
3. Voluntary medical advice to the public by the Residents, Students and Staff of AIIMS, under the guidance of the faculty members.



Ministry of Health & Family Welfare
Government of India

National TeleConsultation Service

[Home](#) | [About](#) | [eSanjeevaniOPD](#) | [Patient Profile](#) | [Timings](#) | [FAQs](#) | [Contact](#)

[1. Patient Registration](#) | [2. Patient Login](#) | [Doctor Login](#)





स्वस्थ भारत

138209hrs 10mins
Total Consultation Hours

31
Doctors Attending at Present

02mins 37secs
Average Consultation Duration

07mins 57secs
Avg. Patient Wait Time

Follow these steps to consult doctor

1. Verify your mobile number.
2. Generate token after registering.
3. Login upon getting notification.
4. Wait for your turn & consult doctor.
5. Download ePrescription.




Online OPD


Real Time Telemedicine


State Services Doctors


Video Consultations


Chat


Free Service

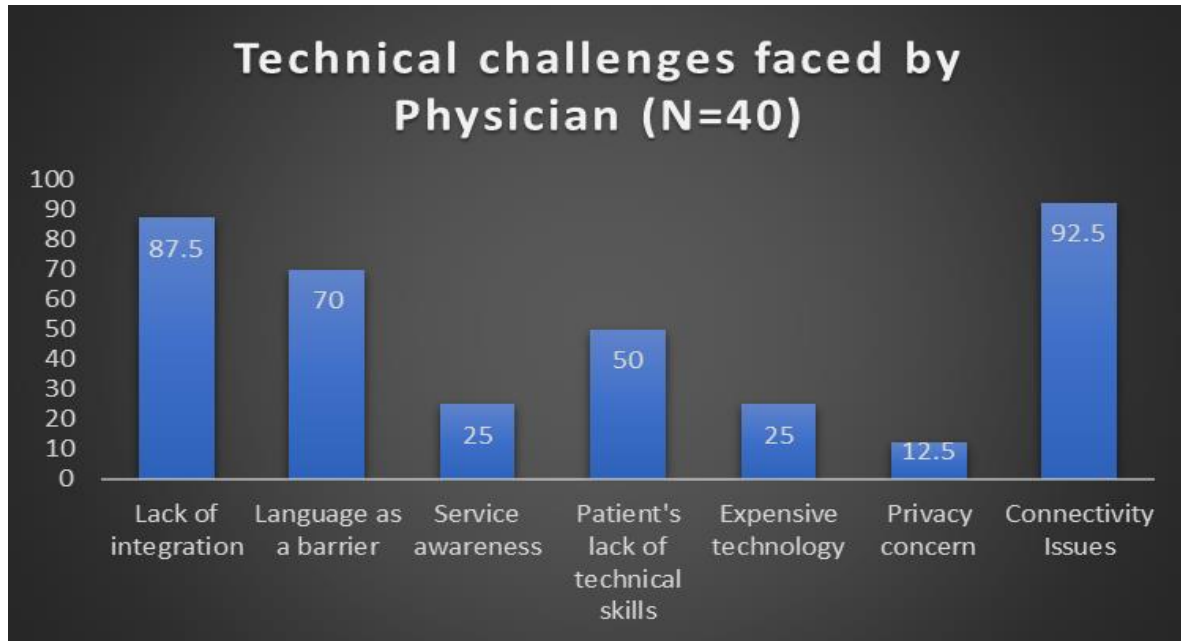
Helpline Number +91-11-23978046 Toll Free : 1075 Helpline Email ID : covid2019@gov.in States & Union Territories (View pdf)

Helpline Number for CoronaVirus +91-11-23978046 or 1075

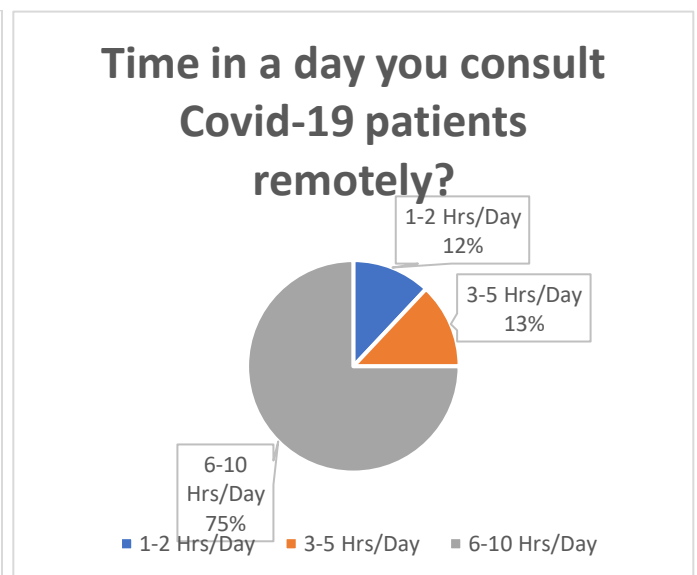
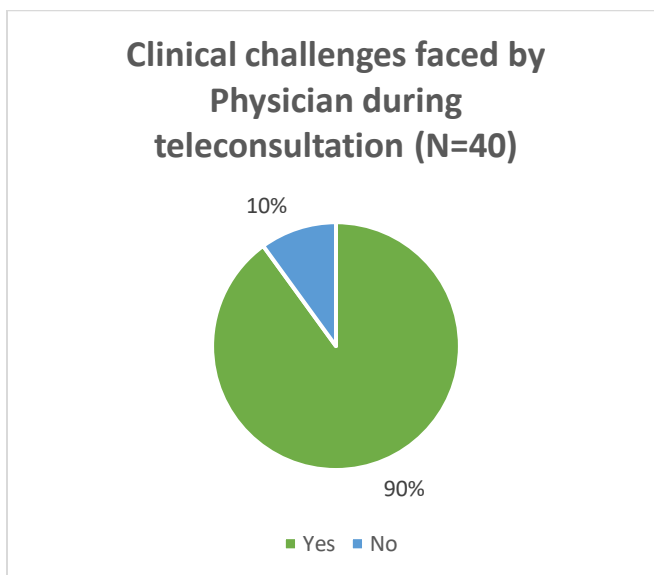
Helpline Number for CoronaVirus +91-11-23978046 or 1075

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II. Enumerate the challenges and Opportunities faced by physicians in teleconsultation of SARS2 COVID-19 patients



(Fig-1) Question was asked to enumerate what technical challenges you faced while consulting COVID-19 patients, response has been shown in the form of graphs. i.e., 92.5% said there is lack of connectivity and 70% enumerate language as a barrier during teleconsultation. 87.5% said lack of integration mainly interoperability. 50% physicians said Patients lack of technical skills is quite time-consuming and results in poor follow up.



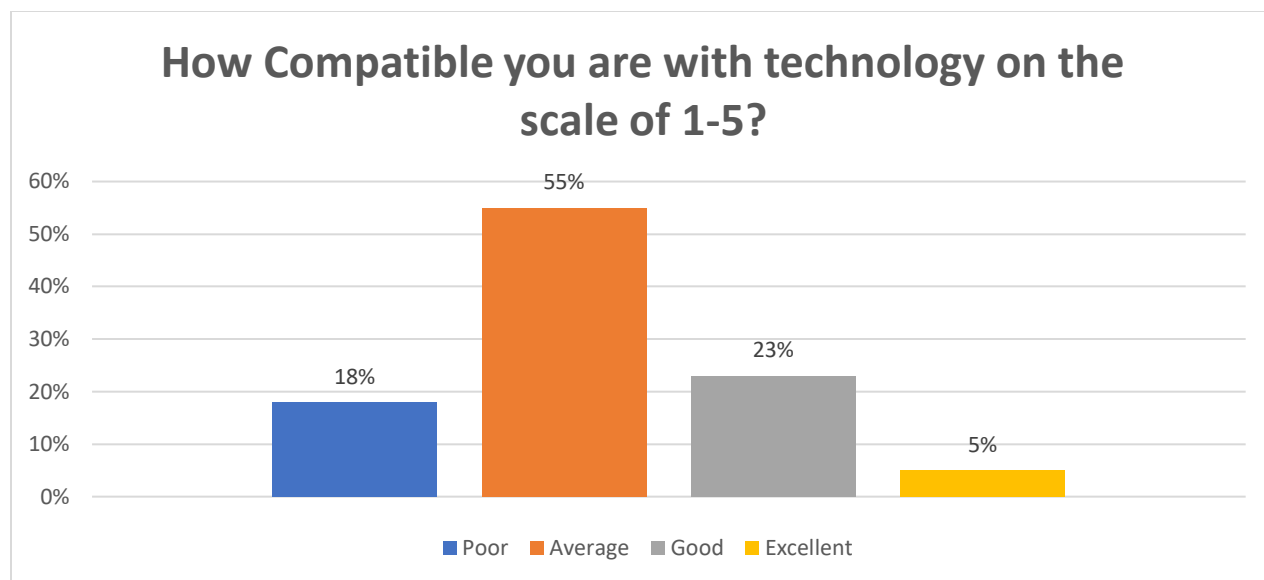


Fig-4 represent compatibility of Physicians with the technology, graphs show only 23% out of n=40 having good compatibility with the technology and feel confident while using the tools/applications.

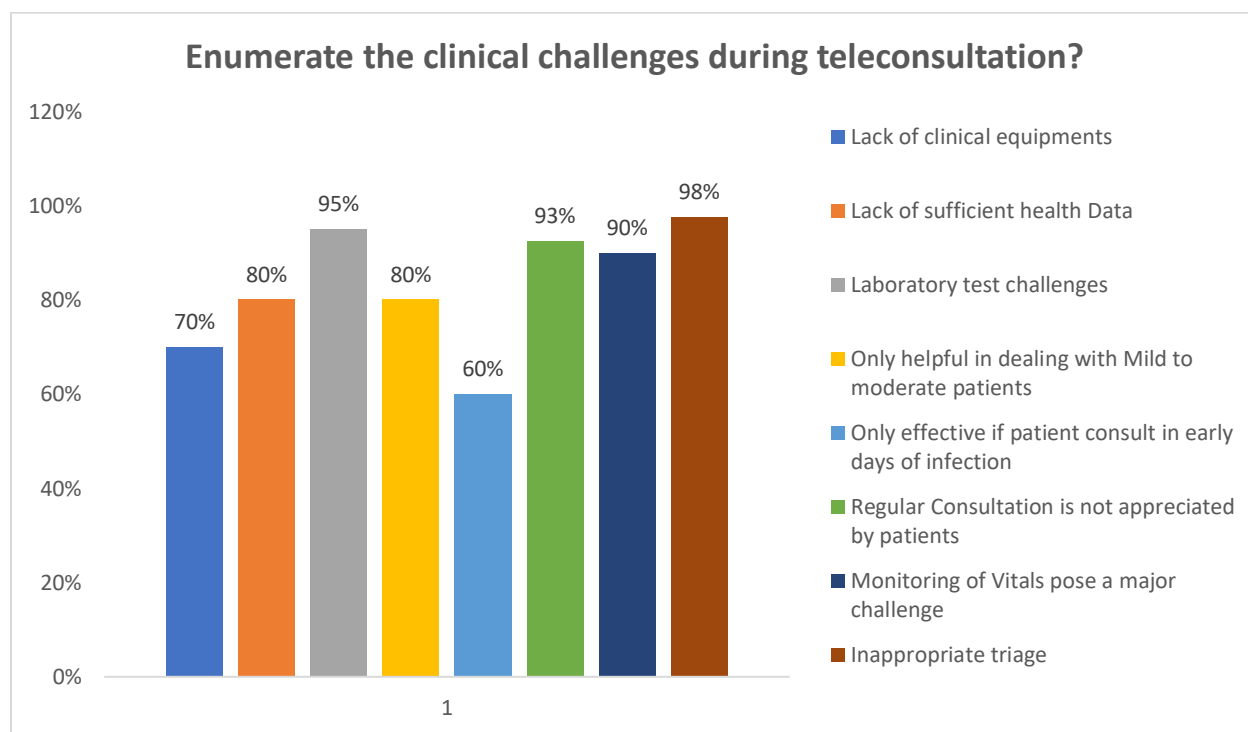


Fig-5 shows the clinical challenges faced during the teleconsultation, almost 95% take lab testing as a major clinical challenge a crucial step to define interventions which gets delayed due to many reasons like accessibility, affordability or unawareness, and 98% said Inappropriate triage of patients is a major threat to consultation as the nature of the disease is virulent and due to barriers of virtual consultation many other examinations are missed thus leading to deterioration of patients condition suddenly. 93% said Routine follow up by patients was a major task due to their ignorance or self-medication after first consultation. 90% said monitoring of vitals like temperature, spo2, pulse rate, Bp, Respiratory rate repeatedly was challenging. 80% said its helpful in dealing mild to moderate cases.

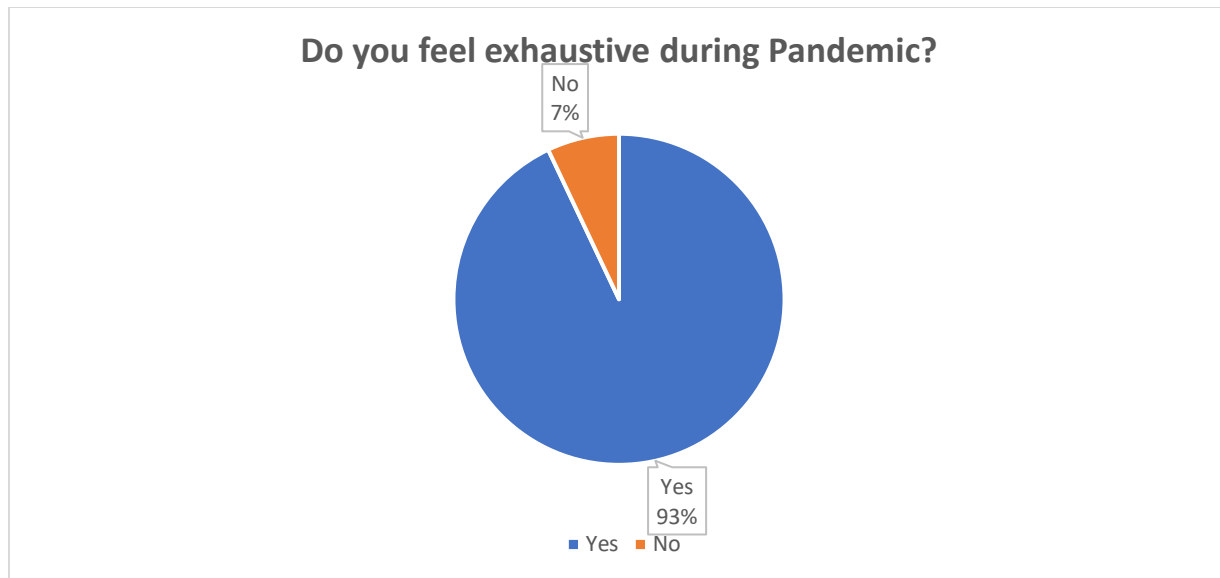


Fig-6 shows the response of physician towards burnout or exhaustive situation during pandemic due to the workload during the month of April-May 2021 as Covid-19 cases were at peak.

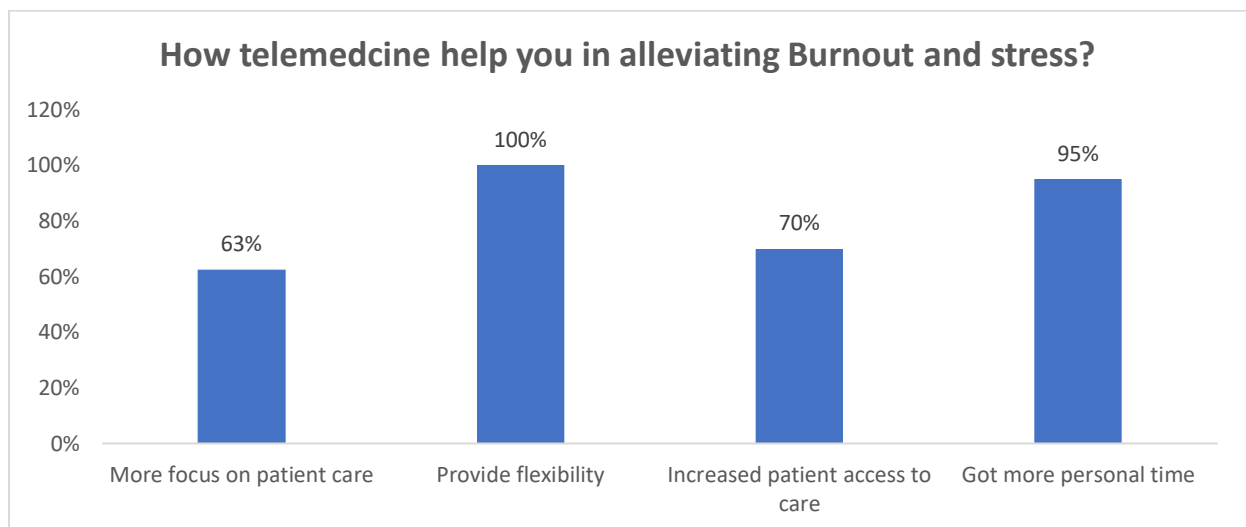


Fig-7 represent how Teleconsultation can act as a boom for alleviating Burnout and stress among doctors, 100% of them agree upon flexibility of timing due to digital consultation, 63% said more focus on patient care led to alleviating the burnout condition.

OPPORTUNITIES

Burnout is a state of emotional, physical, and mental exhaustion caused by excessive and prolonged stress. Biggest Opportunity faced by physicians in this pandemic situation while performing their duty as a doctor during teleconsultation was to be with their family. Flexibility of timing plays a big role in reducing stress by providing convenient, real-time interactions with their patients while simultaneously relieving the scheduling pressure on the physician practice. Travelling time is saved. Teleconsultation provides 100% flexibility to physicians; they can work pan India from the comfort of their homes. Physicians having co-morbidities also get flexibility to be safe at home and perform their duties. Physicians get to focus more on patient care and thus built a good rapport with patients which is good in long term. They also get to work in a multiple setup without getting exposed to infections.

DISCUSSION

This cross-sectional examination presumes that telehealth offers abilities for distant screening, care, and treatment, and helps checking, observation, discovery, avoidance, and moderation of the effects on medical services in a roundabout way identified with COVID-19. Although because of the absence of a completely merged administrative system in India there are a ton of difficulties while managing the Covid-19 patients. Clear from the examination that even there is an absence of ability among the doctor while managing programming, around 42% of the sample doctors are not knowledgeable about usage of the innovation. There is a need to prepare medical care staff alongside the doctors for the reinforcement of the teleconsultation benefits in India.[12].

Test assortment from home during pandemic represents a more noteworthy test, Integration of labs and wellbeing offices with teleconsultation administrations can profit the patients just as doctors in managing the patients.[13]

The weight of care constrained on patients and their families should be thought of, however, new information and abilities can be empowering for clinicians, patients, and livelihoods the equivalent. Likewise, as COVID-19 has accelerated up computerized education, so to telehealth can speed up wellbeing literacy. [14].

As evident from Brown.Net.al, there is a need for high-speed internet while transferring data while teleconsultation. In India, there is a lack of network connectivity in the rural as well as urban area which make it more complex.

Awareness among the population/patient regarding teleconsultation services is a major factor that affects the utilization rate of the service in the country, by creating an awareness camp we can increase the outreach of available services.

Reimbursement 70% of expenses during teleconsultation need to be covered under health insurance packages as implemented by French government during the pandemic. Although there are several packages offered by organizations like Apollo, Care Insurance which cover teleconsultation coverage. By involving teleconsultation under the Universal Health Coverage scheme can benefit patients and also reduce OOPe.

CONCLUSION

The study concludes that telehealth offers capabilities for remote screening, care and treatment, and assists monitoring, surveillance, detection, prevention, and mitigation of the impacts on healthcare indirectly or directly related to COVID-19, Although due to the lack of a fully consolidated regulatory framework in India there are a lot of challenges while dealing with the Covid-19 patients. Evident from the study that even there is a lack of expertise among the physician while dealing with software, around 18% of the sample physicians are not compatible with technology. 90% physicians say patients do not have vital monitoring instrument/skills, due to ignorance of diagnostic tests and follow ups resulting in severity of disease. 98% physicians found triaging in COVID-19 to be the biggest challenge because of the nature of the disease. Teleconsultation has provided many Opportunities to physicians. About 75% (30 physicians) worked for 6-10 hours/day with the flexibility in timing and thus having more personal time and comparatively less stress. It has helped in convenient interactions with the patients, easy monitoring of discharged patients, safety to doctors, more opportunity to learn new skills, and could reach to masses easily. Many doctors could explore more by working in multiple set ups.

RECOMMENDATIONS

- Good Network/internet connection stability
- There is a need to train healthcare staff along with the physicians for the strengthening of the teleconsultation services in India.
- Training and change management techniques
- Reimbursement plans, Teleconsultation should be incorporated in health insurance plans for deeper penetration in healthcare system.
- Integrating EHR and improving user experience
- Incorporation of blueprint on NDH for privacy
- Camps for services awareness
- Clinical barriers can be overcome by providing a wholesome package including vital measuring equipment, lab testing or other investigating facilities, home collection facilities, medicine delivery and restocking facility, follow up team of healthcare managers/coordinators along with physician

Limitation of the study

As the study was conducted at the peak time of the pandemic, there were some limitations of the study noted.

- Targeted physicians were less responsive
- The study area is limited to Delhi NCR private hospitals only
- Physicians seeing only COVID cases were reached.
- Small sample size
- Limited time

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APPENDIX

I. Consent Form

- Your voluntary participation is being requested to take part in a research project called **“Teleconsultation during COVID-19 Pandemic: Opportunities and Challenges”** that is being carried out by **Dr. Fatima Rashid Ali Sheikh**.
- The general aim of this study is to enumerate the opportunity and challenges during the teleconsultation of COVID-19 patients.
- If you agree to participate in this research project, you will be asked to fill the Questionnaire via google form.
- Your cooperation in this exploration project is completely intentional and you won't be punished or unfavorably influenced in any capacity should you decrease to take part, withdraw from the study at any time or refuse to participate in a portion of the study.
- Your anonymity will be maintained by **Dr. Fatima Rashid Ali Sheikh** and your identity will not be revealed to others.
- There will be no considerable risks involved in this project.
- The time commitment of participating in this study includes 15-20 minutes.
- After this study, the information collected will be saved and used for the completion of the project and data analysis.
- The results of this study will contribute to the advancement of knowledge in the Post Graduate Diploma in Hospital Management.
- If you have any questions or concerns regarding the project, please contact (principal investigator's Name and Contact number)

Name: Dr Fatima Rashid Ali Sheikh
Contact Number: 9999026563

I understood the information stated above. I have been given an opportunity to have all my questions and concerns answered fully. I agree to participate in this study and indicate my consent by signing below.

Signature of Participant/Email ID

Date

II. Questions asked in the primary research via Google form

Q1. How compatible you are with telemedicine technology on the scale of 1-4? (1 being the least and 4 being the best)

- a. 1- poor
- b. 2-average
- c. 3-good
- d. 4- excellent

Q2. What are the technical challenges faced on Teleconsultation of Covid-19 patients? (Multiple choices can be picked)

- a. Connectivity issues
- b. Lack of integration
- c. Language as a barrier
- d. Service awareness
- e. Patients lack of technical skills
- f. Privacy concern
- g. Expensive technology

Q3. Did you face clinical challenges on Teleconsultation of Covid-19 patients?

- a. YES
- b. NO

Q4. If yes, then what was the most challenging? (Multiple choices can be picked)

- a. Inappropriate triage
- b. Lack of sufficient health data
- c. Regular consultation is not appreciated by patients or no follow ups
- d. Monitoring of vitals pose a major challenge
- e. Lack of sufficient health data
- f. Only helpful in dealing with mild to moderate cases
- g. Lack of clinical equipment's

- h. Only effective if patient consult in early days of infection

Q5. Do you feel exhaustive during pandemic?

- a. YES
- b. NO

Q6. How many hours in a day do you provide Teleconsultation to Covid-19 patients remotely?

- a. 1-2 hours/day
- b. 3-5 hours/day
- c. 6-10 hours/day

Q7. How telemedicine helped you in alleviating Burnout and stress? (Multiple choices can be picked)

- a. Got more personal time
- b. Flexibility
- c. Increased patient access to care
- d. More focus on patient care