

CHALLENGES AND OPPORTUNITIES OF TELEMEDICINE DURING COVID-19 IN INDIA

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INTRODUCTION

Within weeks, COVID-19 has transformed our practice of palliative care and clinical medicine as we all know it. Telemedicine has emerged as a critical technology to bring medical care to patients while attempting to reduce the transmission of COVID-19 among patients, families, and clinicians. It is also increasingly necessary to preserve scarce resources like personal protective equipment. Disasters and pandemics pose unique challenges in providing healthcare. Though telemedicine will not solve them all, it is well suited for scenarios in which medical practitioners can evaluate and manage patients.



Research Question:

What are the challenges and Opportunities to implement telemedicine in health care sector in India?

Objectives:

To Identify the Opportunities and Challenges of Telemedicine system in Healthcare Sector.

Methods:

we sought to discuss opportunities and challenges of telemedicine in India by reviewing the secondary literature that evaluate telemedicine as a means to facilitate the access to care, deliver highly specialized visits, diagnostic consultations, rehabilitation, and remote monitoring of several types of diseases.

Keywords: challenges, opportunities, telemedicine, covid-19, India.



LITERATURE REVIEW

Ravin (2015) conducted a survey to analyze the challenges faced in delivering of ehealth care services in selected rural areas of Madhya Pradesh and Maharashtra. Challenges for providing ehealth care services in rural areas are also discussed, such as workforce issues, quality of care concerns, reimbursement, licensure, awareness and access to broadband services.

Sinha (2012) Enlightening Aspect of Telemedicine in Punjab has talked about the different technical issues, their downsides in India. A lot of measures should be executed. They have examined telemedicine as far as neuron careful crises and prescribed the standards for telemedicine.

Pal (2005) Telemedicine Diffusion in a Developing Country: The Case of India introduced a point by point concentrate on the situation of telemedicine in a developing nation like India. Inferable from the majority share 75% of the Indian population living in rural zones, the authors examine the need of telemedicine in India and have discussed three Indian telemedicine implementation cases



RESULTS

Some of the challenges are:

Cost: India ranks 184th out of 191 in terms of GDP% spend on healthcare, as per WHO. Government spending on the healthcare industry stands at 1.15% of the Gross Domestic. Health spends must at least increase to 2.5% of GDP, at a minimum.

Safety, security and confidentiality of patient records:

Telemedicine would create electronic databases of patient records. These could be stored in centralized servers, and would therefore be subject to risks like hacking viruses, etc., that any database is exposed to.

Infrastructure: One of the key challenges in resource-constrained settings is the skewed distribution of healthcare delivery infrastructure. While a huge extent of the population lives in rural areas, healthcare establishments are situated in urban settings.



Technology: Technology platforms were something accessible and being utilized, yet were not managed, which uncovered both patients and providers to challenges.

Literacy rate and diversity in languages: only 65.38% of India's population is educated with only 2% being knowledgeable in English. With India being a nation of different languages, it gets troublesome.

Lack of basic facilities: In India, about half of population lives underneath the poverty level. Fundamental Infrastructural facilities like transportation, power, media transmission, safe drinking water, primary health services, and so forth are vanished.



Opportunities: According to Data Labs, the telemedicine market in India is expected to reach a market value of \$5.4 Bn by 2025 with a CAGR of 31% from the current year.

Remote patient monitoring: Remote patient monitoring (RPM) allows healthcare providers to track a patient's vital signs and other health data from a distance.

Mobility and Cloud Access: Hospitals and insurance agencies presently store clinical records in the cloud so patients can get to their test outcomes online every minute of every day. This, thus, diminishes paper utilization and spares time.

Better Investment Opportunities: Because telemedicine is one of the quickest developing segments in the healthcare industry, numerous organizations are putting resources into it.



Acceptance: It has been found that the patients have no difficulty in accepting telemedicine. About 80% of the consumers were satisfied with the treatment given or provided through telemedicine which in accordance with the study done by Carr Hill. They are happy that some senior doctors have seen their case.



CONCLUSION

A Telemedicine service provides a cost-effective treatments and less wasted time for patients and for Health professionals. Expanded prevalence of chronic diseases, technical progressions especially in software and an ascent in the aging population are main considerations driving the enormous development in telemedicine. Hope to see telemedicine become considerably more noticeable in healthcare over the coming years, with more patients than any other time in recent memory approaching top-quality medical care readily available.



SUGGESTIONS

There is need to train the doctors in the use of telemedicine systems. Just as doctors learn how to use computers; the use of telemedicine should become an integral part of the education and training of doctors. Telemedicine should be introduced as a topic at the undergraduate level. Training programs should be organized to familiarize the practitioners with the features.

Taking care of the language issue can help extend the telemedicine reach. In India with more than 22 officially recognized languages and more than 1600 mother tongues, linguistic diversity appears to be a significant hindrance in the method of a patient in one area having the option to converse with a specialist in another district.

Healthcare Quality Improvement

COURSE FROM:
COURSERA





OBJECTIVES: implementing a quality improvement (QI) to improve processes of care and patient outcomes.

Definition of QI:

The combined and unceasing efforts of everyone - healthcare professionals, patients and families, researches, payers, planners, and educators.

To make the changes that will lead to

1. better patient outcomes(health)
2. better system performance(care).
3. better professional development(learning).

How many dies from medical mistakes in Indian hospitals?

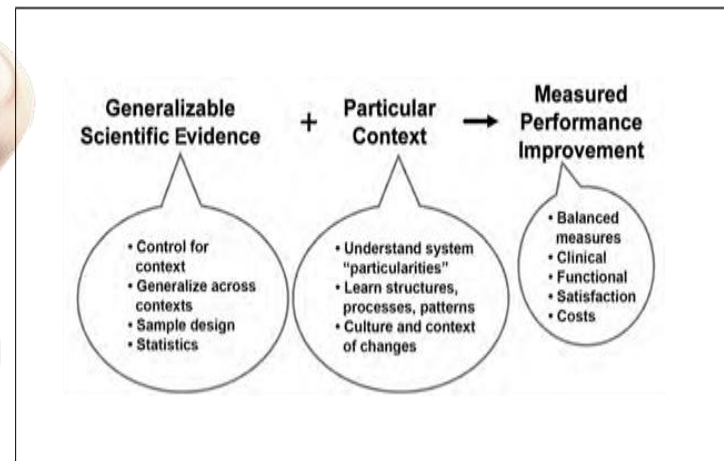
- An updated estimate says **2.6 million deaths yearly** due to medical mistakes in Indian hospitals.



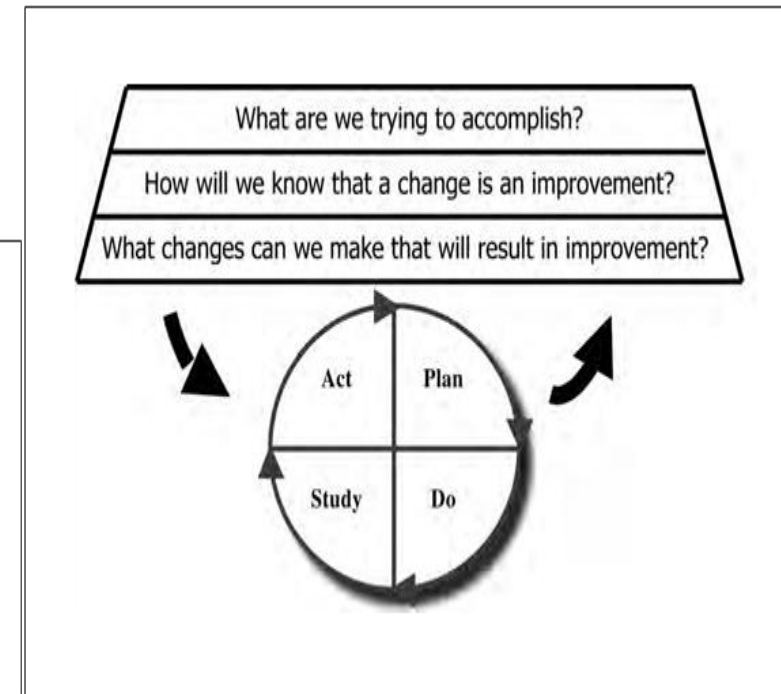


Steps for quality improvement:

1. Identifying the gap between what we know and what we do:



Evidence-Based Improvement



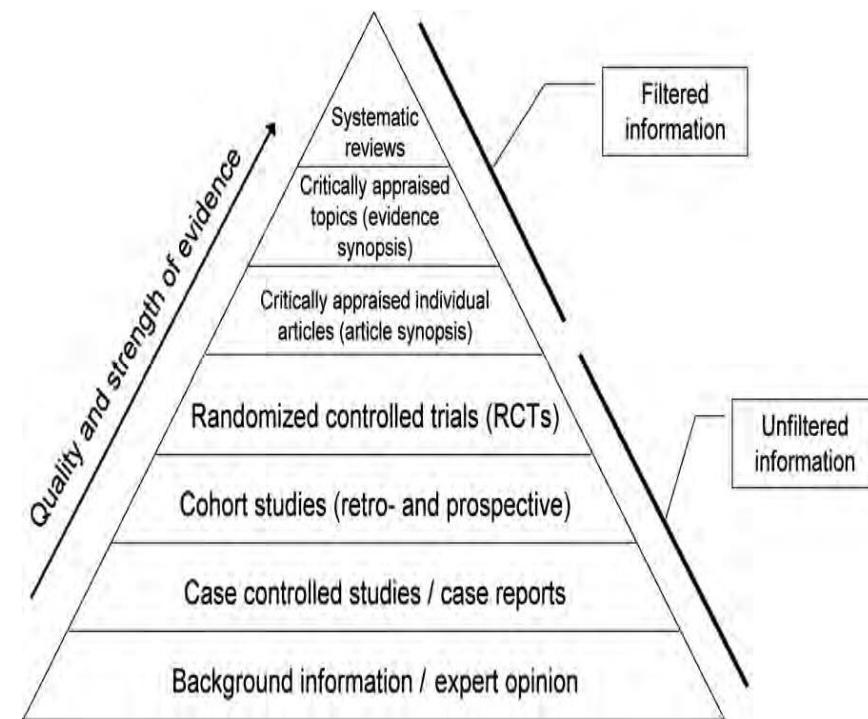
Model for Improvement



2. Finding scientific evidence to apply for clinical improvement

Evidence- based practice:
Process of shared decision making between practitioner and patients based on :

1. Research evidence,
2. Patient experience & preferences,
3. Clinical expertise, and
4. Other available robust sources of information.



Strength of Evidence



3. working in interprofessional teams for the improvement of patient care

Teams: two or more people with a common goal and clear roles.

Why do we work on teams?

- Quality and safety problems are interprofessional in origin.
- 70% of medical errors due to poor teamwork & communication.
- High functioning teams have greater QI success.

Types of teams:

1. Work Teams
2. project teams
3. improvement teams



4.Targeting an improvement effort

- I. **Specify area to be improved.**
- II. **Narrow focus of improvement work(FINER)**
 - Feasibility: Asses our position or authority in the system
 - Interest: Match personal passion and institutional priority
 - Novelty: Specify action to optimize the local system
 - Ethics: Assure that there is no threat of harm and that IRB policies are followed
 - Relevance: Is relevant for patients, staff and administrators
- III. **3. Specific aim statement(smart)**



5.process Literacy

Helps identify which parts of the system are important to measure in order to understand and improve the care system

Basic Process Modeling Techniques:

1. Brainstorming
2. Cause-and-effect diagram
3. Flow diagram
4. Deployment flowchart
5. Workflow diagram



6.Data Analysis for Improvement

Why are data necessary?

Using data to evaluate outcomes is essential for the improvement of health care.

what some data give you

the snapshot

average & median

range

standard deviation

no trend, no improvement picture, no change indication



7. Understanding & making changes in a system

Why is this human aspect important in QI ?

Some people naturally resist change

Individual response to change – variable

Depth of change – process change vs culture change

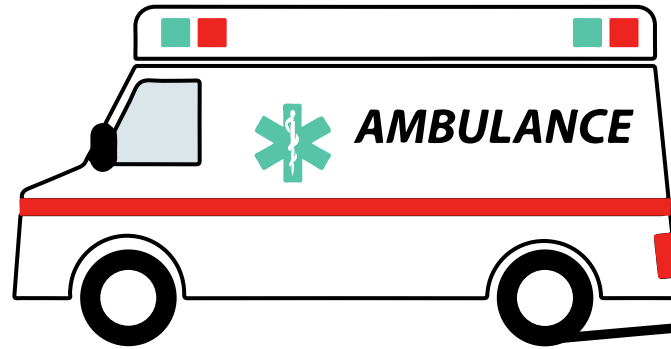
Without this knowledge and patience, we might fail at improvement efforts.

With profound knowledge of psychology of change & human psychology, & patience with process, we can sustain and spread improvement in patient care quality.



8. Spreading improvements

- Starts small scale
 - Tests & refinements.
 - Assure solid implementation in one setting.
- Step 1 : setting a foundation for spread.
- Step 2 : developing an initial plan for spread.
- Step 3 : carrying out & refining spread plan.



Thank You

