Tele-Psychiatry: After Mars, Can we Reach the Unreached?

Mars Orbiter Mission, India’s first interplanetary mission to planet Mars, was a grand success and placed India in the elite club of space explorers on 24 Sept 2014.[1] However, medical care has not reached the unreached population despite such advancement in the field of information technology. In an effort to bridge this gap, the Indian Space Research Organization (ISRO) initiated an ambitious Telemedicine Pilot Project in the year 2001 which was implemented in several States across India.[2] However, the following decade showed that telemedicine was not able to deliver the intended objectives and has not reached its full potential. This article focuses on the issues, challenges and suggestions for telemedicine in India.

**Telemedicine Technology:** Telemedicine is defined as the delivery of health care services, where distance is a critical factor, by all health-care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of diseases, injuries, research and for continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.[2] In simple words, telemedicine can enable primary care doctors/para-clinical staff to perform the function of specialist doctor’s tasks under the supervision of the specialist through telemedicine.

When compared with conventional health care, telemedicine saves time, is economical and reduces the effort to the rural patients, as they are not required to travel long distances for obtaining specialist consultation and treatment.[3] Patient acceptance, clinical outcome, safety and satisfaction has been found to be similar to the conventional face-to-face consultation and care.[4,5] In spite of the above advantages telemedicine in India is haunted with number of issues[6] discussed below.

**Implementation factor:** Telemedicine was implemented with the objective of reaching the unreached. However on analysis of the telemedicine network across India, it could be easily concluded that, telemedicine network are well-connected between tertiary care centre (medical colleges) and secondary care centres (district hospitals) only. Primary health care centres are not yet included in the telemedicine network, hence it falls short of reaching the goal of ‘reaching the unreached’.

**Man power issues:** Telemedicine was imposed on the existing, already over-burdened medical staff without providing additional man-power. In one of the study from Karnataka, 76% of the doctors reported they were already busy in their conventional work, 20% were not ready to wait for teleconsultation and 4% did not want to seek help from the nodal centres.[6] Telemedicine should become part of the health system and needs to be considered as a separate department with dedicated medical staff, supporting and technical staff.

**Attitudinal issues:** The biggest challenge continues to be the human mindset to keep the homeostasis as the norm and providing obstacles for the change. Doctors at the district hospitals have the mind-set of ‘I am also a specialist, then why should I ask for opinion’, ‘It is not my business to ask for opinion’ and ‘What will patient think of me, if I ask for opinion from other doctor, they may think that I am not competent’. This issue needs to be addressed by educating the doctors and providing incentives in implementing telemedicine.[6]

**Technical difficulties:** Poor (satellite/broad band) connectivity, lack of uninterrupted power supply, faulty maintenance of equipments and absence of dedicated noise free space are some of the technical challenges faced in effective delivery of telemedicine services.

**Logistic Challenges:** After tele-consultation, it was found that prescribed medicines were not available, well-equipped laboratories were not there and radiodiagnostic facilities were not there in the client (remote) centre, which hampered the quality of telemedicine services. Another issue was that telemedicine technician
staffs were being utilized for other clerical works in client centres.

Training of manpower: In one study, 52% technicians reported that they had never undergone training in telemedicine and the rest had undergone training only once. There were no programmes or funds distributed to information-education-communication (IEC) activities to sensitize public at large.

Legal Issues: The important point is who would take the primary legal responsibility in cases of medico-legal issues. In usual conventional face-to-face consultations, doctors are liable for the care provided to their patients. However in case of telemedicine, policy makers/law makers need to consider wavering of this liability for success of telemedicine. One suggestion is to give option to the patient to either travel to high centre or to take tele-consultation with possible limitation of the technology without putting much burden on healthcare personnel.

Ethical Issues: Security of the data, privacy and confidentiality of patient in telemedicine consultations are some of the unresolved ethical issues. Majority of the telemedicine centres operating in India do not take written informed consent before transmitting data of the patient to the specialist centre. Hence, this issue needs to be addressed by drafting standard uniform guidelines across the country. Without addressing these, medical professionals may hesitate to utilize telemedicine facilities.

Tapping the potential of telemedicine: Application of telemedicine is much more valuable in cases of:

- a. Emergency, when time is a critical factor in the outcome of the diseases,
- b. During disaster situation, a specialist can provide his services through telemedicine in disaster affected areas,
- c. Post operative follow-up since the patient is not required to travel unnecessarily and hence saving money and time,
- d. Providing training for primary health doctors,
- e. Monitoring national health programmes and other health programmes,
- f. Providing medical care in custodial settings such as prisons, juvenile homes, rehabilitation centres, destitute homes and so forth and,
- g. Mobile telemedicine in an innovation which has not yet been tapped fully.

Telemedicine facilities needs to operate around the clock 24/7 to provide care in medical/surgical emergencies across the State. Such dedicated telemedicine consultation facilities need to be set-up in cities to provide consultation and hand-hold the primary care physicians.

In conclusion, telemedicine technology have developed quickly and adopted but the development of clinical, operational, legal, ethical guidelines and protocols for telemedicine practice has been comparatively slow. In this way, the systematic application of Information and Communication Technologies to the practice of healthcare can change the medical practice and training.

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