

Telemedicine: The Present and the Future

The coronavirus disease 2019 (COVID-19) pandemic resulted in unprecedented changes in all aspects of life including health care. In March 2020, the beginning of pandemic in India coincided with the Indian government allowing telemedicine and laying down norms for the practice of telemedicine in India. Before this time, telemedicine was practiced in a very limited way.^[1] For example, at the Grant Medical College and Sir JJ Group of Hospitals, there was a facility for specialty departments to interact with doctors working at the district health centers. On fixed days, a patient from a district health center could be shown on video and a lecturer in a specialty department would do a long distance consultation, and in this exercise, we had understood that this mode of communication is indeed very helpful in our setting; as there is a shortage of subspecialists in rural India. From March 2020, telemedicine was taken up in a big way and became one of the pillars of health care in COVID ravaged India.

The initial fears and inexperience were short lived and it soon became clear to doctors as well as patients that this is a viable mode of interaction. One could easily establish rapid communication and provide timely advice. Renewal of prescriptions and handling simple information became easier. Industry grew around this requirement and service providers upgraded telecommunication and organized it. Taking appointments on the web, managing the audio and video consultations and providing advice became further streamlined and at the present time multiple such avenues are available to us in India. Private and public sector establishments started these services for their patients as did the solo practitioners. The government has laid down guidelines for new consultations, follow-ups, prescribing various categories of medications, and stressed the important fact that this mode of consultation can be undertaken only for patients who reside in India at the time of the consultation.

THE GOOD

Telemedicine is clearly effective in cost and time,^[2] particularly for out-of-town patients seeking medical help in large metropolitan cities of India. With each patient who travels to a large city like Mumbai or New Delhi, traveling and staying arrangements of the patient and his relatives are expensive and cumbersome. Given the prevailing conditions in India, I have always been concerned about the difficulties which people encounter in reaching their doctors; often, travelling without reservations, undertaking long

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distance travels, and waiting for long hours to be examined. These hardships are completely annulled by telemedicine. Telemedicine is efficient as appointment systems are monitored electronically and enough time for every consultation is automatically scheduled and ensured. It reduces the stress that physicians encounter in a busy outpatient department, with many patients waiting for their turns. A sizable proportion of the outpatient practice consists of follow-ups and monitoring of previously diagnosed and treated patients. In these situations, the patient is familiar with the doctor, the doctor has an idea of what he needs to enquire, check, and which investigations to order. Hence, these follow-up consultations are particularly suitable for telemedicine. Where patient mobility is an issue, virtual consultation has become a boon for the patients. In fact, some patients who were unable to visit the hospital because of the transportation difficulties have been seen successfully with telemedicine and they have been very happy with the situation. With the telemedicine process getting further organized, ordering investigations, getting the reports back, and studying them at the doctor's convenience adds to its efficiency.

THE DIFFICULT

One of the concerns of telecommunication was that the doctor cannot examine the patient as he or she would want to, as happens during an in-person consultation. Often the questions come up, how will you check hepatosplenomegaly, optic fundus, heart sounds, and so on and so forth. There is no denying the fact that a thorough examination forms the basis of the diagnosis and therapy. However, paradigms have quickly developed as to how one assesses the examination findings and some protocols for online examination of various systems are in place. Moreover, a number of gadgets have evolved to fill the gaps in the examination. A fundus photograph can now

be available at long distance and the mobile phones and the smart watches can keep track of pulse, blood pressure, heart rhythms, and sleep patterns, helping the process of diagnosis. A virtual glove can even palpate the organ systems!

A reproach of telemedicine is the lack of development of rapport between the patient and the doctor. Conventionally, this develops during the in-person visit, history taking, and examination and forms the backbone for establishing a good relationship.^[3] Concerns have been expressed about the non-development of rapport in telemedicine; but speaking to various physicians, the opinion seems divided. Perhaps, more time is necessary to answer this important question. The surgical and interventional aspects of medicine are completely out of the ambit of telemedicine, which is a major negative.

Challenges relating to the ability to use technology form a hurdle for some individuals. These people are neither comfortable nor conversant with the technology and cannot use it very well. So often, younger relatives are required to be present during the consultation time to sort out these aspects for the senior people. In some parts of our country, connectivity is inconsistent and people can have difficulties keeping up with this challenge.

How our patients perceive the telecommunication consultations is also evolving. A large section seems to believe that the traditional face-to-face consultations are superior and they are much more comfortable with it, but it may be a question of time before his perception changes as we adopt to the new requirements.

Data security and ethics are another area of concern. While it is indeed nice to have the data stored electronically, privacy concerns and unintended use of such data have realistic issues and implications. Secure systems are the need of the hour.

FUTURE

Pandemic thrust telemedicine onto us, initially, we hesitated but now most of us are pleasantly surprised that it does seem

to serve some of the requirements of the health-care system^[4] in India. Teleconsultations are generally less expensive, are devoid of the hassles of travel, and can be handled effectively. The reach of telemedicine is another major plus point, patients living in rural situations can avail of the expertise of specialists and subspecialists who are generally located in larger cities. To follow and monitor progress of chronic stable conditions, this mode is expected to stay and as more and more gadgets are designed, and artificial intelligence comes into play, perhaps, the significance, reach, and use of telemedicine in health care in India may become wider. Telemedicine seems set to stay.

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