

TELEMEDICINE IN HEALTHCARE

Zahid Kamal Siddiqui, Imran Ahmad

Telemedicine is the art and science of providing healthcare and its practice using mobile and cellular technology. It is rapidly becoming popular in the recent years but during the COVID-19 pandemic especially it proved to be extremely useful as it enabled patients to receive medical attention without leaving their homes and coming in a face to face situation with the health care provider. Whereas it proved to be a boon for the patients in developed countries, it has the potential to revolutionize access to healthcare in developing countries.¹

The biggest advantage of telemedicine is that people living in remote areas can receive medical cover. This is usually the case in developing countries, where people have to travel long distances to reach a health facility. Telemedicine can overcome this obstacle by enabling doctors and other trained staff to provide medical advice and consultation remotely. This can especially be beneficial in emergencies when immediate action might be of immense help to save lives. This can not only save time but also reduce costs and other perils incurred while travelling long distances by the patients and their relatives. At the same time, cost of equipment and infrastructure can also get reduced.²

Telemedicine may also address another very significant problem in developing countries - the shortage of trained manpower in healthcare. According to World Health Organization (WHO) there is acute dearth of healthcare professionals in many if not most of the developing countries. By using telemedicine doctors can provide services to wide and remote areas without themselves being present there.³

Despite the numerous advantages, there are many challenges that need to be addressed to realize the full potential of telemedicine in the developing countries. One of these is technical glitches. Internet, one of the essentials needed for this technology may be slow, unreliable or, sometimes, not present at all at places where services are needed. Additionally staff trained to use this technology may be lacking. Power failures with little back up can become cumbersome at times.

Another challenge is the lack of awareness and acceptance of telemedicine among the patients as well as the healthcare professionals. Many people in developing countries consider telemedicine as inferior and lacking in quality as they prefer to see a doctor in person. Healthcare personnel may also feel reluctant to use telemedicine as they may not trust technology or feel that it compromises the quality of care. Sometimes they may feel threatened by these services fearing that it may affect their practice.

In order to address these challenges, governments and healthcare organizations in developing countries need to invest in infrastructure and technology. They need to improve internet connectivity and make telemedicine services more affordable and accessible to patients. They also need to train healthcare professionals on how to use telemedicine effectively and how to ensure the quality of medical care provided remotely. Healthcare organizations should also create awareness campaigns to educate patients about the benefits of telemedicine and encourage them to use it.

Telemedicine is being used in different parts of India & Pakistan. One example of these is Aravind Eye Hospital

System that uses Telemedicine for Teaching as well as remote consultation for Diabetic retinopathy and Retinopathy of prematurity. Similarly in Pakistan King Edward Medical University started using telemedicine to a great effect during the Covid-19 pandemic. It has established a telemedicine department where expert opinions regarding various questions from the general public were provided. However there is a great scope for improvement in the magnitude as well as quality of these services to become sustainable in the real sense.

REFERENCES

1. Shen YT, Chen L, Yue WW, Xu HX. Digital Technology-Based Telemedicine for the COVID-19 Pandemic. *Front Med (Lausanne)*. 2021 Jul 6;8:646506. doi:10.3389/fmed.2021.646506.
2. Hirko KA, Kerver JM, Ford S, Szafranski C, Beckett J, Kitchen C, et al. Telehealth in response to the COVID-19 pandemic: Implications for rural health disparities, *J Am Med Inform Assoc* November 2020;27(11):1816–8.
3. Boniol M, Kunjumen T, Nair TS, Siyam A, Campbell J, Diallo K. The global health workforce stock and distribution in 2020 and 2030: a threat to equity and 'universal' health coverage? *BMJ Glob Health*. 2022 Jun;7(6):e009316