View Point

Tele-Medicine: The Way Forward in the New Normal

Running Title: Strengthen Tele-medicine Quality

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Abstract

More than a year has elapsed since the World Health Organization (WHO) declared Coronavirus disease 2019 (COVID-19) as a Public Health Emergency of International Concern (PHEIC), and characterized it as a pandemic. This has exposed the public health systems across the whole world and wreaked havoc in India. Access to healthcare has been greatly hampered, as a result, there has been an increased focus on telemedicine in the country. Telemedicine involves providing healthcare and treatment services through telecommunication. The Indian government has increased focus on the teleconsultation services by e-Sanjeevani through two modalities, these are - eSanjeevani Ayushman Bharat-Health and Wellness Centres (AB-HWC) and eSanjeevaniOPD. However, teleconsultation has its pros and cons. On one side, it is a boon in pandemic times that a patient residing in a remote area is able to seek quality treatment from a specialist doctor; while on the other side, because of its virtual nature it has certain drawbacks such as lack of infrastructure, training and more importantly the physical examination of the patient gets missed. Although, amidst all these obstacles telemedicine is a good initiative but one has to have another look at its approach Another major problem has been the availability of doctors for eSanjeevani in some states which leads to the quality of service being compromised; something that should be addressed as quickly as possible. Efforts should be made for ensuring the availability of doctors for eSanjeevni at tertiary care government hospitals which would ultimately lead to the overall improvement in the quality of healthcare even in the remotest of the health centre across the country.

Keywords: COVID-19, Telemedicine, eSanjeevani, quality, healthcare

Introduction

It has been more than a year since World Health Organization (WHO) declared Coronavirus disease 2019 (COVID-19) as a public health emergency of international concern (PHEIC), and characterized the viral outbreak as a pandemic [1]. This pandemic exposed the weaknesses of public healthcare systems of both the developing and developed nations, such as inadequacies in - health infrastructure, equipment, human resources due to the lack of investments on healthcare sector [2-4]. Moreover, the plagued global economy further wreaked havoc everywhere.

Although unprepared, the Government of India (GoI) took it on top priority and made India self-sufficient for many essentials. The first case of COVID-19 was detected in India on January 27, 2020 and it peaked around the mid-September 2020 when the daily case load was approximately around 95,000 [5]. Soon, there was gradual decrease in the daily case load with each passing day. With the launch of the mass COVID-19 vaccination drive across the nation on January 16, 2021 it was thought that we are on the way to overcome the contagion [6]. However, no one had imagined that the worst was yet to come. Around mid-February 2021, the second wave began in smaller districts of some Indian states. Soon, by the end of April 2021, the daily new cases detected rose to over four times the first wave records and peaked around mid-May 2021 with a daily case load of more than 0.4 million [5,7]. At present, experts believe that though the daily new cases detected are on decline, the entire nation however is in an unpleasant state [8]. With a series of nationwide lockdowns, closures and diminution of routine health facilities, conversion of routine secondary- and tertiary-level care facilities to COVID-19 dedicated hospitals, the biggest victims have been the non- COVID-19 patients. This segment mainly includes the patients of both communicable and non-communicable diseases who have undergone suffering, and even ultimately death among certain patients. There has been a negative impact on the maternal health services as well. Importantly, there is an impact on the preventive and promotive programs such as routine-immunization also [9].

Prior to COVID-19, there was already lack of accessibility and availability of healthcare facilities. Presently, the pandemic has nothing but furthered the problem. To combat this and for improving the health care services, the GoI and many institutions promoted the use of Telemedicine or Teleconsultation services. This involves providing healthcare and treatment services through Telecommunication. Telemedicine literally means “healing at a distance”. It involves the usage of information communication technology (ICT) in order to improve patient outcomes by increasing access to care and medical information [10].

In India, telemedicine was first started by ISRO (Indian Space Research Organization) with a Telemedicine Pilot Project in 2001 in which Apollo Hospital, Chennai was linked with Apollo Rural Hospital at Aragonda village in Chittoor district of Andhra Pradesh. Following this, various initiatives taken by the ISRO, Department of Information Technology (DIT), Ministry of External Affairs, Ministry of Health and Family Welfare, and various state governments played an important role in developing telemedicine services in India [11].

According to WHO, 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 disease and injuries, research and evaluation, and for the continuing

education of health care providers, all in the interests of advancing the health of individuals and their communities" [12].

Though telemedicine has been there since many years, however it has grabbed due attention only recently [3]. Due to the fear of contracting the virus, many physicians as well as patients are preferring to consult through phone call or video conferencing [13]. In India also, telemedicine was not used much until the rise of this pandemic. The GoI has now increased its focus on the teleconsultation services through eSanjeevani which is a stay at home OPD developed by Centre for Development of Advance Computing (C-DAC) in Mohali [14]. Over a year in function, this initiative has been able to serve more than 50 lakh patients during the pandemic. Currently, it is operational in around 31 states and union territories (UTs) across India in two modalities. The first modality is the eSanjeevani Ayushman Bharat-Health and Wellness Centres (AB-HWC), which is a doctor-to-doctor telemedicine platform that is implemented at all the HWCs in the country across more than 18,000 HWCs. It has been estimated that by December 2022 it would be operational at around 1,55,000 HWCs. Second modality is known as eSanjeevaniOPD which has been started in 28 states and UTs and enables people to avail health services in the confines of their home [15].

Each coin however has two sides. On one side, in the times of the pandemic it is a boon that a patient residing in a remote area is able to seek quality treatment from a specialist doctor through telemedicine. For instance, in case of diabetes, a doctor can communicate with the patient and analyse their self-monitored blood glucose charts (SMBG) and self-monitored blood pressure (SMBP) values and advice accordingly [16].

Studies have found that use of telemedicine on a routine basis in government health facilities can serve the lower socio-economic strata. This helps in establishing a virtual patient-doctor communication which maintains social distancing [17]. However, the down-side is that because of the virtual nature telemedicine has its cons. For optimal functioning, it requires proper infrastructure as well as technical training. Further, teleconsultation doesn't provide direct personal interaction of patients with doctors; online interactions are impersonal; for making a complete diagnosis, the important element of physical examination gets missed [18]. Also, there are concerns regarding the privacy, confidentiality, security of patient information as well as treatment. The doctors as well as the patients are not yet fully convinced with telemedicine [19]. The cost of technology and communication sometimes makes telemedicine less feasible. Considering that, close to 40% of Indian population live below the poverty level, there is lack of availability of basic facilities such as transportation, electricity, safe drinking water, primary health services, etc. In such scenario, some argue that technological innovations cannot create a change.[18] However, though there may not be drinking water in every village, but these days mobile phone has reached almost everywhere, even in most of the underprivileged families [20].

Despite all these obstacles, the Government of India is increasing its focus on telemedicine through eSanjeevani OPD and eSanjeevani Ayushman Bharat-Health and Wellness Centres (AB-HWC) which is a very good move. However, one has to have another look at the approach of the latter. The major problem has been the availability of doctors in some states which leads to the quality of service being compromised. To counter this, Tamil Nadu has recruited full time government doctors for eSanjeevani that has led to an improvement in the number of successful teleconsultations but this is not the same

for other states. In a state like Chhattisgarh, 610 specialist posts are vacant out of sanctioned 670 posts. As on March 9, 2021 the figures in a parliamentary response have shown that India needs around 21,340 specialist doctors for Community Health Centres (CHCs). In spite of this, the sanctioned positions are 12,597 with 9,147 vacancies which clearly depicts the problem. There has been situations where the patients are unable to avail due to unavailability of the doctors online. This further discourages the patient from using this service next time [21]. As India is a diverse country with vast majority of the HWC being located in remote and rural areas, we feel there should be recruitment of more doctors for eSanjeevani at tertiary care government hospitals in order to increase the availability of doctors. This issue should be addressed as quickly as possible and in addition to this efforts should be made towards ensuring the availability of these services at all the HWC as well as other government run health facilities at all levels. Once this is done, we may see an increase in adoption of these services by healthcare practitioners as well as patients. This would ultimately lead to the overall improvement in the quality of healthcare even in the remotest of the health centre across the country.

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