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Short Communication

Integration of telemedicine system in rural-tribal setting in India: A perspective view

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Telemedicine is a tool for transferring comprehensive primary health care (CPHC) services to rural areas of India. The question raises an extensive pathway for strengthening telemedicine systems in terms of integration in rural and remote areas to reach comprehensive primary health care (CPHC) services through Health and Wellness Centers (HWCs), where tribal populations are primarily living. But, after spending lots of efforts in the Universal Health Coverage (UHC) program for the public health benefit, especially reachable to rural and remote areas, the government announced the Pradhan Mantri Jan Arogya Yojana (PMJAY) scheme and HWCs in the Ayushman Bharat (AB) scheme on September 23, 2018 and continues functioning with the aim of providing public funding up to 5 lakh Rs. per family per year, covering health expenditures of 500 million people.¹ These schemes are for people who are below the poverty line (BPL) and could benefit from point care at HWCs. Then some issues are known in rural and difficult geographical regions, like poor road conditions, no large hospitals or health clinics, and basic infrastructure and services, such as ambulance services, in the remotest areas. On the other side, maintaining the health system's ability to provide health services for all such people under Universal Health Coverage. It is vital to have skilled and available health workers.² The plight of India's rural people

and vulnerable communities accounted for about 68.84% of the entire population; many of them have inadequate access to decent health care services. India has the world's second-largest tribal population, accounting for 8.6% of the Schedule Tribe (ST) populations (104 million). These are mostly rural and remote areas with 41% literacy and also 41% below the poverty line with poor maternal and child health.³ The people are lacking the basic standard of livelihood that's urgently needed for primary medical care too. So, by bringing together urban and rural healthcare facilities, telemedicine should help accelerate and achieve the goal of UHC, which is indispensable to improving quality health care services in rural areas.

India's ambitious plan to reach health facilities to all citizens everywhere by 2030, well ahead of the Ayushman Bharat Scheme under the government icon program 'Universal Health Coverage', is tacking progressive. Telemedicine offers an added advantage over traditional methods, as it allows needy people to receive medical care at their doorsteps⁴

It is an important component of the UHC. The worldwide availability and acceptability of phones have been a real blessing in bringing technology to the masses. Patients will be able to communicate quickly in any emergency through regular conferences with their doctor. It enables patients to receive the required and immediate medical care without having to exert much effort.⁵ For instance, recently, it played a major role in helping patients to

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connect with doctors' while being at home, thereby avoiding the risk of getting infected with the Corona virus and visiting hospitals.⁶ Moreover, it is successfully employed for continuum care and quality management of health by monitoring critical signs of non-communicable diseases (NCD), including blood pressure (BP), blood sugar levels, communicable diseases including tuberculosis (TB), malaria, fever, etc., and other needed activities that can be accomplished from home. Furthermore, Sareh Keshvardoost et al. (2021) emphasized the importance of telemedicine and its role in reducing pollution by allowing patients and doctors to interact via e-portals without having to travel.⁷

The telemedicine system is a boon, but numerous studies have highlighted the lack of technological and telecommunication infrastructure in developing countries like China and India.⁸ The acceptance of telemedicine technologies by both patients and healthcare providers among Native Americans has been seen as an implementation barrier to the telemedicine system.⁹ Also, other pitfalls include a tendency to make clinical errors (sometimes) due to a lack of patient examination and case history and patients' dissatisfaction with a lack of face-to-face interaction with doctors.

The authors opined that telemedicine does not replace the need for well-equipped hospitals in the village, but it bridges the gaps between patients and healthcare professionals, reducing the risk of health loss. It also minimizes the costs of healthcare, which obstruct access to high-quality care delivery and also deter approaching patients from accessing healthcare at all.¹⁰ Traditional care models, on the other hand, require patients and health care providers to drive vehicles to visit each other. The adequate advantage of telemedicine in supporting fewer carbon emissions is a potential climate change mitigation strategy not only in rural areas but also in urban settings.¹¹ The concept's results demonstrate that telemedicine aligns with and is practical in achieving UHC objectives, as demonstrated by its visual representation.

Finally, it should facilitate the acceleration of India's UHC initiative by promoting the adoption of telemedicine at the village level. This could be achieved by providing phones, tablets, and internet connectivity at community meeting places or Panchayat Bhawans, which are under the control of the village or community heads, while also implementing minor reforms to the telemedicine system. Along with generating healthcare awareness among health workers in HWCs, consider extended-point primary care units in villages. We are particularly critical of a non-health facility village that is not located within a 5-kilometer radius of the Community Health Centre (CHC), Primary Health Centre (PHC), Sub-Health Centre (SHC), and Health and Wellness Centers (HWC). In this context, we must initiate effective training programs for villagers, Accredited

Social Health Activists (ASHA), Anganwadi Workers (AWW), and school teachers, with the aim of facilitating easy communication between needy individuals and their physicians via telephone and in-person conversations. These opinions and views need to be incorporated into effective policies; it could change the face of healthcare receivers, and poor communities should be mobilized towards HWCs to avail themselves of the health benefits. Only a strong association between the people and healthcare providers can be able to make reachable health facilities among rural and remote areas patients by connecting their nearer health and wellness centers from their village, which should be a great extension in accelerating the UHC program as health for all citizens without any hardship.

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