

Teledentistry: A New Horizon in COVID-19 Pandemic for Oral Health

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ABSTRACT

Currently, all of us are experiencing emotions, thoughts, and situations we have never experienced before. It is not that there were no pandemics earlier. In light of the COVID-19 pandemic, health issues are growing. It has shaken the entire world and created global panic. In a way, it is affecting oral health also. Taking care of oral health is as important as looking after physical health. There is a need for a range of treatments to anticipate oral health issues. Strategies to combat these oral health issues should use options like teledentistry to develop effective methods of support.

Keywords: Dentistry, Pandemics, Teleconsultation, Telehealth, Telemedicine.

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COVID-19

In December 2019, there was an emergence of a pandemic as COVID-19 which has now crossed all the boundaries all over the world. This virus causes respiratory infections and it was discovered in December 2019 in China (Wuhan) and it is a positive-stranded RNA virus having four genera as alpha-, beta-, gamma-, and delta coronavirus. Within no time, this virus has affected the whole world; nationwide complete lockdown was the only choice ultimately. Each passing day lockdown is affecting every single thing, putting frontline workers at risk, and is increasing day by day. It is difficult now to reach healthcare services.

DENTISTRY

The mouth is a mirror of general health. As there is direct/indirect transmission through saliva aerosols and splatters are; matter of concern in dentistry because of their high virulence.¹ Dentists are among the professionals who are at the greatest risk to suffer from COVID-19 due to its great potential for direct/indirect transmission in the oral cavity and the surrounding environment. In this sense, dental clinics are in a high-risk zone for cross-infection among patients, dentists, and teams working in the same clinical environment. A substantial number of individuals who do not show any signs and symptoms of COVID-19 can be a potential carrier for disease so dentists should consider the potential risk. Presently, as such no prompt treatment is available for this pandemic. All the dentists should either shut the elective dental treatments or postponed them, should keep only emergency visits to the dental office. They should not indulge in activities where they can put themselves at higher risk and eventually cross-infection.

TELEDENTISTRY

"Tele" in Greek suggests "distance" and "mederi" is a Latin word which means "to heal."² In 1997, Cook defined Teledentistry as, "The practice of using video-conferencing technologies to diagnose and provide advice about treatment over a distance".³ Such type of combination of dentistry and telecommunication is rapidly growing with the help of computers, cameras, printers, and internet; also it is incorporating consultation, diagnosis, and treatment planning away from the dental setup. It also helps the distant dentist to

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obtain and convey diagnostic data digitally for triage, diagnosis, and patient referral. It is rapidly forming and used extensively in urban and rural areas as well in delivering quality oral healthcare services. Teledentistry is definitely a capable tool for contacting patients without putting themselves at higher risk of infection. It offers worthy reliability for diagnosis, patient referral, and treatment of dental caries in children.⁴ Use of smartphones is ubiquitous, also it has made the capture and storage of digital images easier and safer. This is really a bonus to dentistry ultimately, as photography and dentistry go along for diagnosis, treatment planning, patient referral, and documentation work also. Such technological growth in the dental fraternity can enhance the current scenario of routine dental practice. Teledentistry can be used not only in a single branch of dentistry but in all the branches of dentistry.

Awareness regarding teledentistry can be achieved by conducting continuing dental education programs, seminars, webinars, awareness campaigns, and programs that will help in

improving professional skills. If properly tackled, teledentistry could lead to the betterment of oral healthcare delivery in pandemic situations especially in rural areas, prisoners, old aged and orphanages, underserved people, etc. In the right situations, telemedicine interventions within the limits of correctional settings seem to be a useful method in connecting patients with essential healthcare services.⁵ Use of teledentistry causes a reduction in travel time for the patient and accessibility to specialist is within a few minutes, in a way it is time-saving technology.⁶ Teledentistry can perk up accessibility and feasibility to oral healthcare services, at lower costs.⁷ There is emerging evidence supporting the efficacy of teledentistry.⁸

ADVANTAGES

Teledentistry is useful in a way like enhanced communication with patients and distant fellow dentists or healthcare providers, useful for prisoners, old aged homes, orphan homes, no language barrier, cost-efficient, and time-saving, accessible and feasible for underserved populations, reduction in peer separation and raised specialist support and education too, general dental practitioners can store or send patient records to distant specialists, which may lead to improvement in diagnostic services, improvement in communication with dental laboratories, etc.

LIMITATIONS

Every technology has its own limitations. Although teledentistry is getting increasingly popular, there should be controlled evaluation of clinical outcomes, long-term use, and economic analysis which is still inadequate.⁹ Backup communication system, appropriate internet sources, technical support, variations in knowledge and skills of fellow dentists, consents, privacy, etc., could be expected limitations of teledentistry.

CONCLUSION

In the current situation of pandemics where the government has its own limitations, teledentistry increases patient compliance and create a stronger doctor–patient relationship as there is constant

monitoring and the sensation of participating personally in the healing process, Being in the digital world we strongly recommend teledentistry which gives rise to new opportunities for dental care by providing easy access to efficient consultation in such pandemic situation to improve quality of oral healthcare services.

AUTHOR CONTRIBUTION

All the authors contributed equally.

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