

## Teledentistry: Main Concerns in the New Pandemic Era

### Teleodontología: Principales Preocupaciones en la Nueva Era de la Pandemia

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Dear Editor,

The year 2020 will be remembered as the year in which the Covid 19 pandemic precipitated an unprecedented major disruption in the healthcare system, which led to a period of greater appreciation and expansion for Telemedicine. According to the World Health Organization (WHO), Telemedicine is defined as the use of telecommunications and virtual technologies to provide health outside traditional health facilities (Dasgupta & Deb, 2008; Telles-Araujo *et al.*, 2020; Tunc *et al.*, 2021).

With the advance of the COVID-19 pandemic, many countries stopped several activities considered "non-essential" due to the need for social isolation and face-to-face care in dental clinics as part of this category. Therefore, the only alternative to alleviate the clinical challenges of the physical distance between patient and professional and not leave the first unattended, was to amplify the use of Teledentistry. Specifically, focused on the provision of remote oral health services to reduce the need for physical contact between the patient and the health care provider (Telles-Araujo *et al.*, 2020).

Unsurprisingly, Teledentistry is becoming popular and more widespread, which led to more professionals using this technology in their isolation daily clinical routine. In addition to facilitate the communication and interaction between dentist and patient, it also promotes interest in communication between the health care providers (Jampani *et al.*, 2011). Besides minimizing geographic and temporal barriers, this tool

can fill gaps in the heterogeneous distribution of the provision of oral health care. It also includes the possibility of specialized teleconsultation for general dentists in the public network. Therefore, this resource can reach a substantial number of people, providing more benefits for those who live in remote areas or attend underdeveloped health care units (Dasgupta & Deb, 2008; Jampani *et al.*, 2011; Giraudieu, 2021).

Teledentistry aims to reduce inequality access, triage cases with possible severe morbidity, and allow through online transmission the control of patients with lesions who were already under periodic follow-up. For those who are unable to return to the office for some situation despite the pandemic, this tool can also help to define the best moment and the need for a face-to-face consultation (Jampani *et al.*, 2011; Correia Neto *et al.*, 2021). It makes this modality a good resource for optimizing and reducing office visits and does not compromise the necessary check-ups (Maspero *et al.*, 2020; Suter *et al.*, 2020).

Due to its increase in the public calamity for the past two years of the pandemic, it is important to emphasize there are limits in the practice of it. For example: when the individual is seen by a dental professional for the first time, they are not allowed to perform diagnosis, prescription, and definition of a treatment plan according to the Brazilian Resolution of the Federal Council of Dentistry (Conselho Federal de Odontologia, 2020). The Resolution also clearly states the obligation to record all care provided remotely.

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In the current scenario of COVID-19, Teledentistry has brought numerous advantages (Table I), but nothing can compare to the accuracy of the patient's clinical-in-person diagnosis (Friction & Chen, 2009; Bradley *et al.*, 2010; Daniel & Kumar, 2014; Estai *et al.*, 2016, 2017). Teledentistry has its advantages and limitations (Table II), which generates a lack of acceptance on the part of dentists, considering it complex, making them resistant to new skills (Friction & Chen, 2009; Bradley *et al.*, 2010; Daniel & Kumar, 2014; Estai *et al.*, 2016, 2017; Meurer, 2020).

Some professionals believed that this modality of dental care would be "cold" and "distant", however

over time it was observed that some patients reported being more satisfied (Bradley *et al.*, 2010; Estai *et al.*, 2016, 2017) After all, it is clear that the absence of physical contact needs to be rewarded by empathic skills in online communication, such as listening, showing attention, ensuring verbal clarity, adequate facial expression, and coherent intonation. Online consultations allow the exchange of different types of data, such as written or voice messages, as well as therapeutic suggestions, video messages for a better assessment of the patient's needs, and descriptions of the problems in their own words. It is known that high-quality images are the most common means of communication in Teledentistry, which highlights the

Table I. Main advantages of Teledentistry from the COVID-19 pandemic.

Modalities	Teledentistry advantages
Emergencies	Management by the dental surgeon of various emergencies identifying the need for immediate clinical care, such as in the case of abscess resulting from odontogenic infection or the need for an endodontic treatment. This measure would allow prolonging the definitive treatment until the pandemic is more under control.
Specialized consultations	During isolation, it represented an efficient means for an assessment with the desired specialist without the need for physical care by the dentist. This measure favored the isolation and protection of both the patient and the professional.
Follow-up	It is extremely important and necessary to maintain periodic controls performed on patients who present chronic conditions with the possibility of exacerbation (eg erosive lichen planus) and/or lesions that may undergo serious changes over time, such as potentially malignant lesions. This measure prevented the aggravation of the cases mentioned above with the help of photographs of the altered regions taken by the patient.
Direct communication	Connecting patients directly with the dental surgeon and other healthcare professionals. This is useful when the patient is unsure but does not necessarily need a full consultation, such as if you have questions about the timing of the new medication.

Table II. Main limitations of Teledentistry.

Modalities	Limitations
Physical exam	Although several specialties of Dentistry are organizing to examine and provide adequate guidance through videoconference, it is evident that in some situations the service becomes unfeasible: for example, in the thorough inspection of the oral cavity in addition to inadequate images provided by the patient. Images must have an adequate resolution as to the definition, without alterations with digital filters and that encompasses the entire area of the mouth to be analyzed. These specifications will allow the correct evaluation by the oral medicine specialist (Telles-Araujo <i>et al.</i> , 2020).
External factors	Some external factors can hinder good communication, such as poor quality internet service, background noise in the patient's home, children, and animals dispersing attention during the service.
Accessibility/ Expertise	People unaccustomed to digital media may not be comfortable expressing themselves or may not feel confident in the secrecy and privacy of that channel. Often, there can be objective difficulties to the point where the patient is unable to understand the orientation of proper positioning of the camera to the best location so that the dentist can visualize an ulcer on the lateral edge of the tongue, for example..
Patient confidentiality	The General Data Protection Law of Brazil (LGPD) (Lei N° 13.709, 2018) guarantees the confidentiality of the confidential data of the patient assisted by Teledentistry. Thus, the choice of software and applications for Teledentistry practice should follow the LGPD guidelines for a safe, efficient, and risk-free practice for the patient and professional. This Teledentistry platform needs to include the guarantee of secrecy, confidentiality, authenticity, integrity, availability, and non-retroactivity (Meurer, 2020).

importance of investing in Teledentistry due to the practicality and low cost that a system can offer to clinicians and patients. In the current context, it is a necessary measure for accessibility between the patient and the healthcare provider.

Although we agree with Meurer (2020), when the author states that the choice of software and applications for Teledentistry practice should follow the LGPD guidelines for a safe, efficient, and risk-free practice for the patient and professional. Instant messaging applications (WhatsApp, Telegram, Instagram, SMS, Messenger) and video calling applications (GoogleMeets, Skype, Facetime, WhatsApp) has become a fundamental and accessible tool to fill the gap the pandemic brought to the health care system. Those applications are popular and reachable for the population, since they are used from their smartphones. Several studies have addressed the benefits and contribution of WhatsApp for teledentistry (Pentapati *et al.*, 2016; Koparal *et al.*, 2019; Gebbia *et al.*, 2020; Tamba *et al.*, 2021).

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