














Technologies on Behalf of the Dentistry Dissemination in Pandemic Times: An Interinstitutional Experience


Lucas Alves da Mota Santana¹, Marcos Antônio Lima dos Santos¹, John Nadson Andrade Pinho¹, Nelmara Sousa-e-Silva², Lucas Celestino Guerzet Ayres^{1,3}, Mark Jon Santana Sabey³, Breno Ferreira Barbosa³, Gustavo Danilo Nascimento Lima³, Graziane Ribeiro Couto¹, Liciane dos Santos Menezes¹, Wilton Mitsunari Takeshita¹, Liane Maciel de Almeida Souza¹, Cleverson Luciano Trento¹

¹Department of Dentistry, Federal University of Sergipe, Aracaju, SE, Brazil.

²Department of Dentistry, University Center of Patos, Patos, PB, Brazil.

³Department of Dentistry, Ages University Center, Paripiranga, BA, Brazil.

Correspondence:

Lucas Alves da Mota Santana: <https://orcid.org/0000-0002-8261-1504>

Address: Department of Dentistry, Federal University of Sergipe, Health and Biological Sciences Institute, Rua Cláudio Batista, s/n, Santo Antônio, Aracaju, SE, Brazil. 49060102.

E-mail: lucassantana.pat@gmail.com

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Dear Editor,

The COVID-19 pandemic persists despite the ongoing mass immunization campaign, and there is a long journey ahead until effective control of the situation. On that account, health services and educational systems have suffered significant impacts, leading several countries to resume their activities — such as teaching, primary health care, and academic activities — in a “new normal” scenario and under strict biosafety protocols [1,2]. Consequently, information technologies are essential for primary health care and education [3,4].

In Brazil, telemedicine has grown widely. After the initial adaptation process during the first pandemic year, remote teaching and teleconsultation/ telemonitoring have consolidated such technology [5,6]. By definition, telemedicine means the use of information technology to improve health care by approximating professionals and patients in distant locations [7]. However, despite the acceptance in several health areas, dentists have rejected this new approach, claiming that telemedicine lacks the power to attract patients' attention.

To refute wrongly conceived theories and demonstrate the effectiveness of these resources, we described our experiences concerning dental and multidisciplinary residency education in two states (Sergipe and Paraíba) in the northeast region of Brazil, one of the most affected by the pandemic. Besides, we share positive results obtained during this period that reinforce the effectiveness of this technology as an alternative to face-to-face consultation/teaching in the COVID-19 pandemic.

In Brazil, superior education institutions have adopted remote teaching using various digital platforms, such as Google Meet and Zoom. Despite the well-intentioned — and necessary — initiative, we have observed that such an experience can be discouraging and exhausting for students, graduates, and professors.

Considering this scenario of limitations and challenges, we opted for maintaining the activities through online classes (Federal University of Sergipe, Aracaju, Sergipe State, Brazil). Subjects, such as oral medicine, oral pathology, and anesthesiology, have consisted of clinical cases discussion besides a mobile application utilization (Dental simulator, Microsoft ®), which serves as an auxiliary instrument for teaching anesthetic techniques (Figure 1).

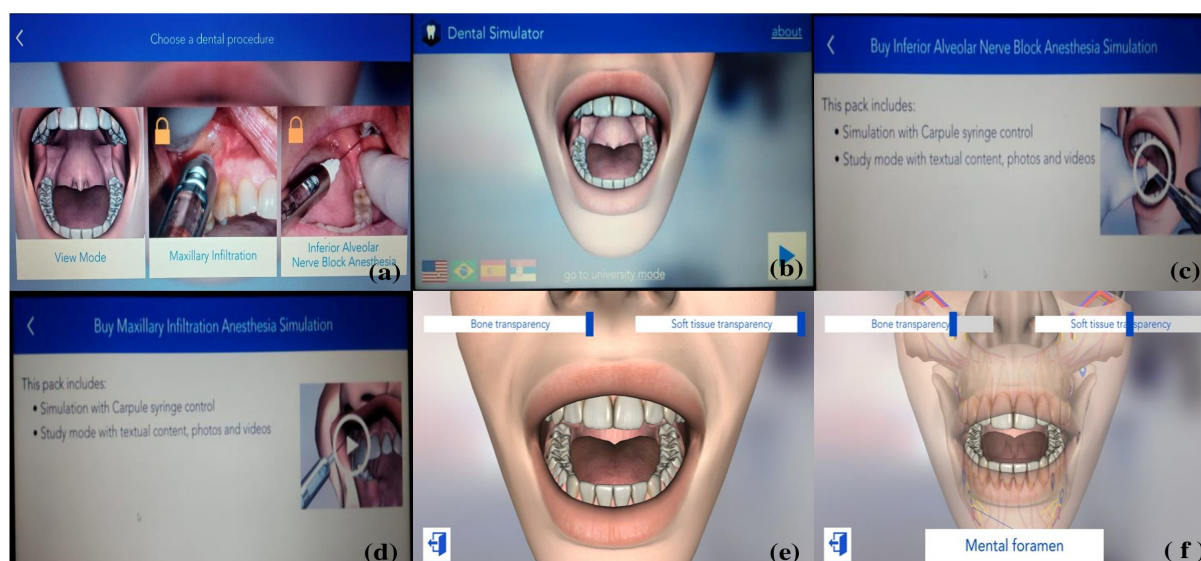


Figure 1. Exhibition of interactive game to practice local anesthesia using a virtual model. (a) and (b) - Software presentation; (c) and (d) - Intraoral anesthetic techniques; (e) and (f) - Anatomical structures and key injection sites.

Also, seeking to overcome the difficulties of adhering to the new methodologies, we have focused on student's motivation. As a result, the students' engagement in activities and perception of online classes can be considered satisfactory. Thus, it is possible to say that, with proper methodologies, online classrooms and online resources may cooperate with traditional learning, even after the resumption of face-to-face teaching.

For example, the application of dental anesthesia is a procedure with a high failure rate. The program accurately evaluated the technical abilities of the “players” through proper handling of the syringe and knowledge of the infiltration site.

Another practical application of this resource is in graduate courses with face-to-face practical activities. Additionally, in several multidisciplinary residencies, since the COVID-19 outbreak, weekly meetings have occurred through videoconference. The dental residence graduate students of UNIFIP (University Center of Patos, Patos, Paraíba State, Brazil) have experienced this reality (Figure 2): they share practical activities, present clinical case seminars, and discuss research ideas.

This teaching-learning relationship has narrowed over this period, and all team has effectively fulfilled the goals, including dental assistance, reception in health posts, and screening of SARS-CoV-2 positive patients. This telemonitoring, consequently, allowed the continuity of activities and professional training. Similarly, positive experiences are present in the country's southern region through the EstomatoNet

Program, a feasible and robust specific telediagnosis service, and the “WhatsApp Teledentistry” for teleconsultation in oral medicine, intensified by the pandemic [5-7].

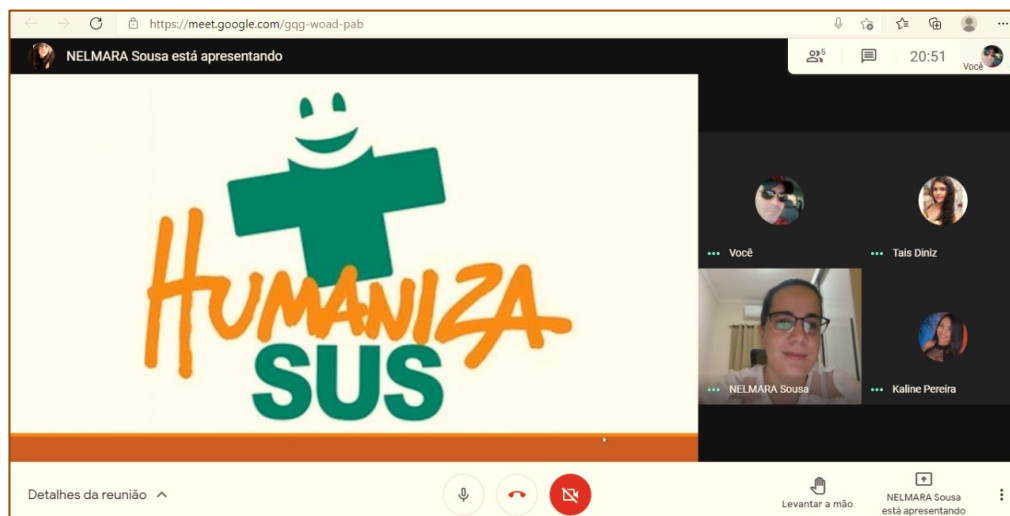


Figure 2. Monitoring the Dental Residency team of the University Center of Patos during weekly meetings to discuss tasks.

Telemedicine, lastly, serves as a boosting tool, stimulating innovation in healthcare and higher education and improving service quality by demanding professionals’ continuous technical and methodological updates. Thus, despite all barriers, telemedicine is advocated as a promising technology during this period, overcoming old dilemmas and starting Brazilian dentistry in the age of telecommunications.

Authors’ Contributions

LAMS	https://orcid.org/0000-0002-8261-1504	Writing - Original Draft and Writing - Review and Editing.
MALS	https://orcid.org/0000-0002-7589-4809	Writing - Review and Editing.
JNAP	https://orcid.org/0000-0002-0648-9762	Writing - Review and Editing.
NSS	https://orcid.org/0000-0002-9257-8912	Writing - Review and Editing.
LCGA	https://orcid.org/0000-0002-2877-7108	Writing - Review and Editing.
MJSS	https://orcid.org/0000-0001-8791-390X	Writing - Review and Editing.
BFB	https://orcid.org/0000-0002-2785-9013	Writing - Review and Editing.
GDNL	https://orcid.org/0000-0001-8902-2385	Writing - Review and Editing.
GRC	https://orcid.org/0000-0002-4443-7867	Writing - Review and Editing.
LSM	https://orcid.org/0000-0002-4971-2354	Writing - Review and Editing.
WMT	https://orcid.org/0000-0001-5682-1498	Writing - Review and Editing.
LMAS	https://orcid.org/0000-0002-0252-8744	Writing - Review and Editing.
CLT	https://orcid.org/0000-0002-1079-4217	Writing - Review and Editing.

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