



Post-COVID-19 influence in orthodontic care from the patient's perspective

Influência nos cuidados ortodônticos, pós-COVID 19, na perspectiva do paciente

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ABSTRACT

Objective: considering the behavioral and paradigm changes due to the social isolation imposed by the new coronavirus pandemic, patients and orthodontists also have anxieties and insecurities in face of the new reality in dental clinics and educational institutions. This study aimed to evaluate, by means of an online questionnaire, the applicability of tele-orthodontics and tele-assistance, the behavior of patients regarding the initiation of or return to orthodontic treatment, and the new changes in clinical care. **Material and Methods:** the questionnaire was based on the Google Forms platform and consisted of three parts: the first one involved study presentation and informed consent form; the second one involved demographic data collection and characterization of the respondents, and the third one was the questionnaire itself. The questionnaire was sent by email and instant-messaging apps, with data being submitted for descriptive analysis. **Results:** a total of 116 replies were returned, and most of the respondents were aged between 18 and 30 years old, female, and residents of the Southeast region. The results showed that tele-orthodontics is still unknown to a significant number of patients (66.4%) and almost half of them (41.4%) want their treatments to be monitored in person, even those whose devices do not require activation. They also prefer the first consultation and diagnosis to be done in person (55.2%). However, they are receptive to the idea of having their data and images transmitted via the Internet, including some remote consultations interspersed with in-person ones, understanding that costs can be lowered. **Conclusion:** tele-orthodontics is a reality, but for orthodontic patients, its applicability remains restricted to sending images and records.

KEYWORDS

Covid-19; Pandemic; Orthodontics; Tele-health; Clinical protocols.

RESUMO

Objetivo: considerando as mudanças comportamentais e de paradigmas decorrentes do isolamento social imposto pela pandemia do novo coronavírus, pacientes e ortodontistas também apresentam ansiedades e inseguranças diante da nova realidade nas clínicas odontológicas e instituições de ensino. Este estudo teve como objetivo avaliar, por meio de questionário online, a aplicabilidade da teleortodontia e da teleassistência, o comportamento dos pacientes quanto ao início ou retorno do tratamento ortodôntico e as novas mudanças no atendimento clínico. **Material e Métodos:** o questionário baseou-se na plataforma "Google Forms" e foi constituído por três partes: a primeira envolveu a apresentação do estudo e o termo de consentimento livre e esclarecido; a segunda envolveu a coleta de dados demográficos e caracterização dos respondentes, e a terceira foi o próprio questionário. O questionário foi enviado por e-mail e aplicativos de mensagens instantâneas, sendo os dados encaminhados para análise descritiva. **Resultados:** foram devolvidas 116 respostas, sendo a maioria dos respondentes com idade entre 18 e 30 anos, do sexo feminino e residentes na região Sudeste. Os resultados mostraram que a

teleortodontia ainda é desconhecida por um número significativo de pacientes (66,4%) e quase metade deles (41,4%) deseja que seus tratamentos sejam acompanhados presencialmente, mesmo aqueles cujos aparelhos não requerem ativação. Preferem também que a primeira consulta e diagnóstico seja presencial (55,2%). No entanto, eles estão receptivos à idéia de ter seus dados e imagens transmitidos pela Internet, incluindo algumas consultas à distância intercaladas com as presenciais, entendendo que os custos podem ser reduzido. **Conclusão:** a teleortodontia é uma realidade, mas para os pacientes ortodônticos sua aplicabilidade permanece restrita ao envio de imagens e registros.

PALAVRAS-CHAVE

Covid-19; Pandemia; Ortodontia; Telessaúde; Protocolo clínico.

INTRODUCTION

In December 2019, COVID disease was first reported in China and since then it has spread very quickly across that country and all over the world, leading the World Health Organization to define this pathological condition as a pandemic in January 2020 [1,2]. This severe acute respiratory syndrome (Sars-COV-2) stemming from COVID-19 caused symptoms in humans, ranging from mild to severe disease manifestations, sometimes fatal.

The spread primarily occurs by coughing, sneezing, talking, and direct contact with surfaces contaminated with droplets and aerosols, with an incubation period lasting 2-14 days [3].

Because of the easy and fast dissemination, several precautions had to be taken such as the closing of numerous labor sectors considered non-essential during the red phase of isolation imposed by the government aiming to avoid proximity and contamination [4].

Dental healthcare specialties require proximity to the patients, which puts dental professionals at high risk of acquiring COVID-19 [5]. Orthodontics, particularly, is considered not essential because it is a long continuous treatment having no direct relation to oral or urgent diseases. In this sense, the recommendation was not to treat orthodontic patients, except for emergencies. In general, patient evaluation and routine orthodontic appointments were recommended to be postponed during the outbreak [6].

Nevertheless, orthodontics usually works with comprehensive fixed appliances for a treatment that takes around two years to be finished and needs regular appointments (e.g., monthly visits). Such a long-time treatment without

any monitoring protocol can lead to possible consequences, not only an extended treatment time but also other complications like inadvertent tooth movements and appliance breakage causing mouth injuries and gum inflammations. Therefore, orthodontists bore in mind the risk of infection and took all the hygiene and protective measures as sooner or later they would have to resume the clinical practice [1]. But during the pandemic, many professionals have turned to social networking technologies to maintain contact with their patients, which was facilitated by the evolution of interpersonal communication media such as remote care software. According to Giudice et al. [2], the Internet is to date the only way to develop a significant linker platform for all medical professionals and particularly for dental practitioners. Internet has made it easy to use tele-dentistry through tele-consultation for patient orientation, tele-diagnosis for image exchange, and tele-monitoring, all being implemented to minimize the risk of COVID-19 dissemination [2]. Moreover, such technology was found to be particularly useful in orthodontics because minor emergencies could be solved at home instead of at the office as photographs can be used for diagnosis and orientation. With the routine use of intraoral scanners and digital imaging in dentistry, clinicians can use digital models and photographs to analyze and review cases and communicate with other professionals, patients, and laboratory staff [7].

Many could expect that those arrangements would last a short time, with life resuming its normal pace and tele-dentistry or tele-orthodontics being no more necessary as in-person visits would eventually be reintroduced. However, COVID-19 contamination persists as people are still becoming infected after two big waves, meaning that this pandemic will not end anytime soon.

This virus may become just another endemic virus in our communities and may never go away [8].

In this context, changes in the dental practice during the pandemic tend to be perpetuated and tele-orthodontics will be increasingly used, thus becoming incorporated into the routine dental practice as it offers advantages such as remote screening of suspected COVID-19 patients, first consultation, diagnosis, and appliance monitoring through video-conference. This “new normal” should consider the best care possible by focusing on the patient, including his or her comfort and healthcare. Special attention is necessary not only to the orthodontic treatment itself but also to the patient’s anxiety about it [9]. The way professionals adjust their services can have a direct impact on the patient’s behavior and his or her acceptance of returning to and continuing the treatment. In this context, it is extremely important to know the patients’ opinions and perspectives regarding behavioral changes in clinical care, including their expectations, insecurities, and uncertainties.

Given these considerations, we proposed to investigate the patients’ perspectives and opinions about a new hybrid orthodontic treatment care with remote and in-person appointments, when necessary, and their ideas about returning to in-person appointments.

METHODOLOGY

This is an investigative study that was approved by the local research ethics committee according to protocol number 33350920.6.0000.5506.

This study was performed to analyze whether the patient would return to orthodontic treatment during the COVID-19 pandemic or whether the patient would accept a remote attendance. Data from questionnaires answered by individuals attending private clinics as well as private or public institutions were collected according to the following inclusion criteria: individuals aged 18 years or older at the beginning of orthodontic treatment or already undergoing it; individuals who are familiar with audiovisual resources; patients who are not in treatment with another specialty, but orthodontics. All participants were asked to read and sign an informed consent form before accessing the 3-item questionnaire developed on the Google Forms online platform.

The questionnaire was prepared by four orthodontists who, in addition to being educators, also work clinically. Next, a statistics professor reviewed the questions and respective answers to verify the statistical applicability of the answers and data collection.

By using the WhatsApp application (WhatsApp Inc., California, USA), the questionnaire was sent to several groups of patients from private clinics and orthodontists working in private and public institutions, dental clinics, or universities for 1 month.

- 1 The questionnaire was organized into three parts: The first part consisted of the initial page, with the title and proposal of the research, and the consent form to participate in the study. The two remaining parts consisted of questions to characterize the sample, such as participants’ age group, gender, occupation, demographic information, and questions on the main topic, which addressed aspects of the orthodontic treatment after the COVID-19 pandemic period, more precisely, patient’s behavior regarding initiation or return to orthodontic treatment and new changes in the clinical care.
- 2 All the answers were kept anonymous as there was no way to trace them, thus avoiding possible embarrassment to the respondents and consequently eliminating possible interference with the results.

At the end of the data collection period, a descriptive statistical analysis was performed with the frequency given in percentage and absolute number.

RESULTS

The virtual questionnaire had 116 answers from patients who wear orthodontic appliances. Of these, 69% were female, 31% were male, and 41.3% were aged between 18 and 30 years old. Just over half (54.8%) were adult patients aged between 30 and 60 years old and a small minority was older than 60 (Table I). There was a greater concentration of individuals with a monthly income of up to R\$ 3,000.00 and currently residing in Southeast Brazil. Most respondents were in re-treatment, whose distribution was equal to that of those who complained of aesthetic or functional problems.

Table I - Sociodemographic characteristics

VARIABLE	N	%
Gender		
Female	80	69
Male	36	31
Age		
Between 18 and 30 yrs	50	43.1
Between 30 and 45 yrs	34	29.3
Between 45 and 60 yrs	28	24.1
Over 60 yrs	4	3.5
Monthly Income		
Up to BR\$ 3000,00	57	49.1
From BR\$ 3000,00 to BR\$ 5000,00	18	15.5
From BR\$ 5000,00 to BR\$ 10000,00	16	13.8
More than BR\$ 10000,00	25	21.6
Area of Residence		
North	22	19.0
Northeast	21	18.1
South	14	12.1
Southeast	50	43.1
Middle west	9	7.8
Orthodontic Treatment Time		
I will begin my treatment now	11	9.5
I'm already in treatment for the first time	26	22.4
I will begin my treatment now for a second time (or more times)	25	21.6
I'm already in treatment for the second time (or more times)	54	46.6
What Was the Main Reason for Seeking Treatment?		
Smile improvement	58	50
Bite improvement (better intercuspation)	50	43.1
Demand or influence from the society	1	0.9
Demand or influence from parents and/or friends	1	0.9
Others	6	5.2

DISCUSSION

A strong ally has been developed and improved during the pandemic period, the tele-orthodontics, which is part of tele-dentistry. Tele-orthodontics corresponds to providing remote care and is used for following up patients in treatment or who are about to start a treatment or who need a virtual consultation. This model of care began in the 1960s with tele-medicine for monitoring and caring for patients living in more remote or less favored locations and who have difficult access to larger centers where treatment, assistance, and diagnosis resources are readily available [10].

Tele-orthodontics increased rapidly during the period of social isolation, which changed the paradigm of orthodontic care [11]. Such a resource has been used by social networks, instant messaging applications, and audio/video calls as a tool to facilitate communication between specialists and patients. To test its feasibility, a system for monitoring patients undergoing orthodontic treatment with a rapid maxillary expander was investigated in terms of reliability and accuracy [7]. The use of WhatsApp was evaluated, and the conclusion was that this application can be very efficient for holding a relationship between dentist and patient.

We aimed at evaluating how frequently dentists have kept contact with their patients during the isolation period. Less than a half of the patients answered that they received messages from their dentists, one-third of these were concerned with their treatment, and one-fourth were concerned with their well-being (Table II). Social media are an easy way to keep in touch with patients, but these seem to be used by a minority of professionals [7].

Dental clinicians can also take advantage of new technologies, such as intraoral scanners and digital imaging devices, for diagnosing, analyzing, and reviewing cases and for holding communication with doctors, patients, and laboratories [7].

A monitoring tool using a secure web server could enable professionals to schedule consultations, including the first remote visit, for diagnosis and follow-up of their patients' treatment with fewer office visits [12]. Our results showed a good representativeness of the usage attributed to tele-orthodontic technologies. More than two-thirds of the respondents are either beginning their treatment or are already in treatment for the second or third time (68.2%).

According to our results, more than 60% of the respondents had never heard of tele-orthodontics, and although their age group corresponds to the absorption of new technologies, half of them reported that they prefer the first appointment for a general evaluation to be in-person (55.2%) as they do not trust a diagnosis made remotely (Table III).

One-third of the respondents (32.8%) do not trust at all the diagnosis made remotely and another one-third trust only if the diagnosis is

Table II - Answers to questions on the patient's perspective about the professional's concern and care during the pandemic

QUESTIONS ASKED AND RESPONSES GIVEN	n	%
Has your orthodontist, during the period of social isolation, been in contact with you through messages to follow up on your orthodontic treatment or provide urgent care?		
Yes, frequently	47	40.5
Yes, seldom	12	10.3
No	27	23.3
Not applicable	30	25.9
If your previous answer was yes, so how often did your orthodontist sends you messages showing concern about your treatment?		
Periodically	42	36.2
Sporadically	18	15.5
Never	15	12.9
Not Applicable	41	35.3
How often has your orthodontist sent you messages showing concern about your well-being at a time of social isolation?		
Periodically	28	24.1
Sporadically	24	20.7
Never	21	18.1
Not Applicable	43	37.1

made by videoconference (29.3%), corresponding to more than 60% of the responses. These data are interesting as the orthodontic diagnosis is based primarily on the analysis of patient documentation. This is even more evident when the respondents report that they do not mind having their data and photographs transmitted via the Internet, meaning that they trust the remote diagnosis, which reflects the current technologies used to exchange data and images remotely. Similarly, they do not mind having the contract digitally signed and they also devalue the online service. This reinforces the idea that the fees should be lower as the infrastructure resources are not used, denoting that the surveyed population has a poor cultural understanding of intellectual and material values. This was also pointed out by Moylan et al. (2019) [7] and Giudice (2020) [2], who found that many appointments for simple evaluation could be eliminated and consequently cost and chair time could be reduced while the delivery of orthodontic care improved.

The participants were also asked about how they see the fact of having both diagnosis and planning made by a specialist and the treatment performed and followed up by another professional, and they answered in two ways: 30.1% of them accepted having their treatment performed by another professional, being seen by other ones and once in a while visiting a specialist, whereas 69.9% prefer to go (having risk or not) to a specialized clinic so that the treatment is performed by the same professional. Moreover, a good number of respondents reported that they

are willing to resume their in-person care as soon as possible and not oppose the continuity of their treatment, provided that all hygiene measures are taken (76.7%) (Table IV). In a recent study also conducted by interview, most patients were willing to continue their treatments during the pandemic, even though they considered the new coronavirus infection dangerous and the risk of contamination(12). The main concerns among these patients were the fear of contracting the disease and the increase in treatment time. However, they were willing to return to face-to-face care as soon as possible because they were well-updated and aware of the protective methods, besides knowing well what PPE is and trusting it. In the orthodontic specialty, most appliances allow being monitored remotely for a longer period. Nevertheless, the in-person participation of the orthodontist still seems to be the preference of most of the respondents, even periodically, which is in contrast with studies supporting the reduction in the number of appointments and establishing a hybrid treatment protocol (Table V) [2,8,12].

The answers of the survey given by the participants may reflect the natural characterize a research bias.

The respondents prefer to go to a dental clinic for help from the dentist and have their appliances fitted since they do not feel comfortable receiving them via mail. In this sense, 36.2% of the patients think that wearing removable appliances sold in stores is not a good option in most cases and 41.4% would only feel safe undergoing the treatment on an in-person basis

(Table V). The respondents showed no confidence in appliances sold directly from the companies by mail, instead preferring closer contact with a specialist without any objection regarding self-portraits to help in the remote evaluation of the progress of the orthodontic treatment. Any preference for the so-called “do-it-yourself” orthodontics is based on cost purposes rather than on understanding what could be similar to a specialist-driven treatment [13].

For seeking urgent dental care or returning to treatment while new COVID-19 strains circulate the world, professionals must reinforce

the importance of good work practices, hygiene, and infection control in their clinics. In this sense, dentists are avoiding the use of aerosols and human contact by prioritizing only emergency treatments during the pandemic due to the high transmissibility of the coronavirus. Some recommendations on hygiene measures for in-person appointments have been published [14], but clinicians may not be fully aware of them. Despite that, patients seem to trust their dentists as 63.8% expect them to use PPE and 53.4% would like to resume their treatment as soon as possible (Table VI).

Table III - Answers to questions on the patient's knowledge and thinking about tele-orthodontics and remote first care

QUESTIONS ASKED AND RESPONSES GIVEN	n	%
Have you ever heard about teledentistry or tele-orthodontics?		
Yes, and I know what it means	17	14.7
Yes, but I do not know what it means	7	6
Yes, but I am not sure what it is all about	15	12.9
No, I've never heard	77	66.4
Do you believe that the first appointment for anamnesis and evaluation of treatment needs could be made remotely (not face-to-face)?		
Yes, I think it is perfectly feasible and I would feel comfortable doing so, synchronously or not	24	20.7
Yes, but I would only feel comfortable if done synchronously (live)	25	21.6
Yes, but I would feel more comfortable if I could watch a video and then respond asynchronously	3	2.6
No, I would only feel comfortable with a face-to-face evaluation	64	55.2
Would you trust an orthodontic diagnosis made remotely, with evaluation information and photographic images of the face and occlusion sent by e-mail or made available in software?		
I would not trust it at all as I believe that the diagnosis always needs to be face-to-face	38	32.8
I would trust it if it was made by a specialist	23	19.8
I would only trust it if it was made by a referred specialist or someone I trust	21	18.1
I would trust it only if it was made by a referred specialist or someone I trust, but along with a video conference so that I could interact with him or her	34	29.3
If the remote orthodontic diagnosis is proven to be as efficient as an in-person one, would you accept having your photos and documentation transmitted over the Internet?		
Yes, I would accept it with no problem	37	31.9
Yes, but I would make sure that the virtual environment is secure and that only the professional and radiology center would have access to my clinical records	45	38.8
Yes, but I would make sure to receive them from the radiology center and then send them to the professional	13	11.2
No, I do not trust the security of the virtual environment as I prefer to receive them and take them to the professional	21	18.1
In this case, would you accept that your diagnosis and treatment planning be performed by a specialist and the face-to-face care be performed by another non-specialist professional closer to you?		
Yes, I certainly would	12	10.3
Yes, but I would like to be seen by the specialist from time to time	23	19.8
No, I would like to go to a specialist if this does not increase the cost	40	34.5
No, I would like to go to a specialist even if it means an increase in cost	41	35.3
As for the service contract, you:		
Prefer to receive, sign, and send the printed version back to the professional	18	15.5
Agree to receive it digitally and then print, sign and send a hard copy	17	14.7
Agree to receive it digitally and then print, sign and send a scanned copy	35	30.2
Agree to receive it digitally and then sign and send it without printing	46	39.7
Regarding the fees paid to the professional for orthodontic treatments in which the patient has a first online consultation and is partially followed up remotely, do you think that:		
They should be lower as the professional will have savings from working on a remote basis.	45	38.8
They should be the same because the office still must be maintained and what counts is the knowledge and experience of the professional	34	29.3
They should be higher as the professional will have to invest in equipment and software to provide virtual care services	3	2.6
I don't know about that	34	29.3

Table IV - Answers to questions on the patient's perspective about the treatment

QUESTIONS ASKED AND RESPONSES GIVEN	n	%
By analyzing the pandemic moment through which we have just passed, when would you intend to begin or resume your orthodontic treatment?		
I would wait until next year	17	14.7
I would wait six months	3	2.6
I would begin next month	9	7.8
I would begin now	30	25.9
Others	57	49.1
For you who are in orthodontic treatment, what do you think about the continuity of your treatment?		
I prefer to remove the appliance as soon as possible to avoid visits to the orthodontist.	0	0
I would like to remove the appliance, but I understand that I must resume the treatment as soon as possible to finish it correctly.	6	5.2
I see no problem in continuing the treatment if proper hygienic care is taken	89	76.7
Not applicable	5	18.1

Table V - Answers to questions on the patient's perspective about remote treatment

QUESTIONS ASKED AND RESPONSES GIVEN	n	%
In the case of removable appliances that do not require chair time and clinical procedures to be placed, would you accept receiving the appliance by mail and start wearing it?		
Yes, if my orthodontist follows up with me through periodic virtual meetings to answer questions or schedule a face-to-face appointment afterward	39	33.6
Yes, if I have a dentist or orthodontist with whom I can ask questions	24	20.7
Yes, if I receive an instruction manual on how to use and take care of the appliance without follow-up care by an orthodontist	1	0.9
No, I prefer to go to the clinic to have braces placed and receive orientation from the orthodontist	52	44.8
Some orthodontic aligner companies have opened stores in shopping malls to sell their appliances. There, an image of the patient's bite and face is taken, and then an orthodontist hired by the company diagnoses and plans the sequence of aligners to be used. After they are made, the patient receives the aligners at home without any form of contact with the orthodontist, although he or she can clarify any doubts with the company. What do you think about this? Would you buy them this way?		
I find it very interesting and support the idea, so I'd definitely buy them	11	9.5
I find it interesting, but I think I should be seen by an orthodontist before the aligners are made, otherwise, I would not buy them.	34	29.3
I don't think it works and I wouldn't buy them without an orthodontist's opinion	42	36.2
I don't think it works at all and I wouldn't buy them this way	29	25
Some appliances after being placed do not need to be activated, but they need to be monitored. How would you feel about the smooth progress of your treatment in these cases?		
I would feel more secure with only periodic in-person visits	48	41.4
I would feel safe with some virtual follow-up consultations, but along with periodic in-person visits	39	33.6
I would feel safe with virtual follow-up consultations, whereas face-to-face visits would be needed only for the activation of the appliance	22	19
I would feel safe and would not mind having only virtual consultations	7	6
In the case of remote monitoring, how do you see the need to use your smartphone to take pictures of your mouth and bite and send them to the orthodontist according to directions on how to do so, including devices to help you move your lips apart for better shots?		
I would not bother taking my pictures and I see no problem to send them to the orthodontist	44	37.9
It would not bother me because by doing so I wouldn't need to go to the clinic so often.	15	12.9
I would like to go to the clinic less often, but I don't feel able to or comfortable with taking pictures of my mouth	23	19.8
I don't think it is my task and I would not take the pictures as I prefer to go to the clinic for evaluation	34	29.3

Through the implementation of new policies and procedures, it is possible to achieve a high standard of cross-infection control, such

as decontamination of environments, surfaces, and instruments, use of personal protection, and disposal of clinical waste, all proving to be valid and

Table VI - Answers to questions on the patient's awareness of personal protective equipment (PPE) and asepsis in the dental office

QUESTIONS ASKED AND RESPONSES GIVEN	n	%
Do you know the WHO recommendations for the use of PPE (personal protective equipment) in dental practice due to the pandemic?		
Yes, I do	69	59.5
Yes, but I don't know what part of the PPE is	16	13.8
No, but I've heard of it, and I think it's important	30	25.9
No, and I don't think it is important	1	0.9
Do you feel safe resuming your orthodontic treatment?		
No, I do not. I prefer to wait	3	2.6
Yes, I do. But I prefer to wait a little longer	11	9.5
Yes, I do. I would like to resume my treatment as soon as possible	62	53.4
Not Applicable	40	34.5
Is there any procedure frequently performed by your orthodontist before the pandemic that you don't feel confident, he/she will perform after the pandemic?		
Yes	7	6
No	83	71.6
Maybe	7	6
I do not know	19	16.4
Regarding the aseptic (hygiene) conditions of the dental office, what do you expect from your orthodontist when you resume orthodontic treatment?		
Use of PPE	74	63.8
Maintenance of PPE already in use	32	27.6
I don't care about PPE	0	0
I am indifferent	10	8.6

necessary measures to decrease the spread of Covid-19 in this current scenario. Thus, face-to-face care should be provided as it seems to be the preference of most of the patients, which further increases the practitioner's awareness about maintaining a safe clinical environment. However, it is suggested to avoid crowding of patients in the waiting room, meaning that it is essential to schedule appointments with longer intervals between patients and maintain proper hygiene of the environment, furniture, and dental materials [15].

A study on technologies, applications, and benefits available from tele-orthodontics showed that this tool should be considered welcome, as it is capable of successfully managing dental emergencies by allowing reassurance and monitoring of patients remotely without subjecting them to unnecessary risks. In addition, professionals can use tele-orthodontics for sending and receiving videos and photos [16].

To overcome the challenges of these new technologies, dentists should be adequately trained to increase the acceptance of tele-orthodontics by patients [17].

According to our results, tele-orthodontics seems to play a complementary role in orthodontic treatment, being more focused on the communication between professional and patient and not being directly related to the orthodontic treatment itself. Tele-orthodontics can be very important and advantageous, not necessarily as a way to allow the continuity of the treatment, but also to reassure patients about caring for their smile and oral health.

CONCLUSION

Even in the face of a pandemic, patients who wear orthodontic appliances are eager to complete their treatment. Tele-orthodontics is still little known by patients and most prefer that the treatment itself, even with removable appliances, should be performed in person. Patients are more receptive to remote communication only for exchanging information, documentation and records, as well as for communicating their well-being, doubts, and insecurities.

Author's Contributions

MPP, LÁM: Conceptualization. MPP, LÁM: Methodology. GFN, GSD, ACRNS: Investigation. MPP, GFN, GSD, LÁM: Writing – Original Draft Preparation. ACRNS, MM: Writing – Review & Editing. MM: Supervision. MPP; LÁM: Project Administration.

Conflict of Interest

No conflicts of interest declared concerning the publication of this article.

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Regulatory Statement

Modelo: This study was conducted in accordance with all the provisions of the local human subjects oversight committee guidelines and policies of: Guarulhos University. The approval code for this study is: Opinion number 4.223.313; CAAE 33350920.6.0000.5506 .

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