Impact of COVID-19 in Pediatric Dentistry: A Literature Review

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ISSN 0975-2366
DOI: https://doi.org/10.31838/ijpr/2020.SP1.130

Review Article

Impact of COVID-19 in Pediatric Dentistry: A Literature Review

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Received: 14.04.20, Revised: 16.05.20, Accepted: 18.06.20

ABSTRACT

Background: The on going COVID-19 epidemic has spread very quickly. World Health Organization (WHO) declared a public health emergency of international concern on 30th January 2020 and called for collaborative efforts from all countries to prevent the rapid spread of COVID-19. In pandemic conditions like today, dentists can be the first people to contact with an infected person; these people can become carriers and infect others. COVID-19 transmission during dental treatment can occur through aerosol inhalation or direct contact with saliva, contaminated instruments and surface, especially for children patient in pediatric dentistry.

Objective: To review the impact of COVID-19 in pediatric dentistry.

Literature Review: In the dental environment associated with pediatric dental care, oral fluids from patients or contaminated dental instruments or environmental surfaces create a potential pathway to spread the virus. Dental care procedures which include the use of instruments such as high-speed turbine handpieces and scalers for oral hygiene are associated with the formation of aerosols and large droplets of saliva and blood from patients.

Discussion: For children able to split, pre-procedural mouth rinse with 0.5%–1% hydrogen peroxide should be used, as it has non specific virucidal activity against corona viruses. Dentists should avoid or minimize operations that can produce droplets or aerosols.

Conclusion: On the other hand, if faced with a dental emergency, immediate intervention is needed, adherence to the strict protection protocols of each individual involved and environmental disinfection is very important to minimize the risk of cross infection.

Keywords: COVID-19, Pediatric Dentistry

INTRODUCTION

Coronavirus disease 2019 (abbreviated "COVID-19") is a respiratory disease that appears to be caused by a new corona virus and was first detected in December 2019 in Wuhan, China. The disease is very contagious and its main clinical symptoms include fever, dry cough, fatigue, myalgia, and shortness of breath. In response to this serious situation, World Health Organization (WHO) declared a public health emergency of international concern on 30th January 2020 and called for collaborative efforts from all countries to prevent the rapid spread of COVID-19.[1,2,3,4]

Structurally, this virus consists of a single and large RNA with a size of 350 kbp (kilobase-pair) and it is generally transmitted from human to human through hands, saliva, nasal droplets and surface contact. The average incubation period for COVID-19 is from 4 to 14 days.[5] Humans affected by the disease clinically have early symptoms of fever, cough, myalgia or fatigue and computed tomography (CT) results showing abnormalities in the chest, severe disturbances in respiration while less common symptoms are sputum production, headaches, hemoptysis However, it has been reported that the spread of the virus can occur without clinical symptoms. Initially, the disease has a zoonotic transmission route; but the latest transmission route, which is from human to human, causes its transmission to be very rapid to various continents.[6]

There is no treatment or vaccine available for this antiviral. Therefore, patients must rely on supportive therapies such as Vit A, C, D and chloroquine phosphate until the immune system can kill viral infections.[8,9] This epidemic not only carries the risk of death from viral infections but also unbearable psychological pressure for people throughout the world.[10] COVID-19 transmission during dental treatment can occur through aerosol inhalation or direct contact with saliva, contaminated instruments and surfaces.[8]

In this situation became very important by implementing special protocols related to oral pathology that normally did not represent

emergencies and clinical situations that were included in the pediatric dental emergency category. Therefore, not only strict infection control protocols and high effectiveness are needed in the dental care environment, it is also important to conduct long distance communication and education aimed at maintaining children's oral health.[9]

LITERATURE REVIEW

Risk factors of COVID-19 which associated with pediatric dentistry

The dentist and his equipment are very close to the patient, so the possibility of being infected by micro droplets from infected patients is very high and there is also a risk of cross-transmission[18]

Corona viruses such as SARS-CoV, Middle East Respiratory Syndrome coronavirus (MERS-CoV), or endemic human corona virus (HCoV) can survive on surfaces such as metal, glass, or plastic for several days. Therefore, contaminated surfaces that are often touched at health care sites are a potential source of coronavirus transmission.[8,9,10] In addition, it was shown that HCoV can still infect for 2 hours to 9 days at room temperature, and survive better at 50% humidity compared to 30% relative humidity. Thus, maintaining a clean and dry environment in a dental clinic will help reduce COVID transmission 19.[8]

Pediatric dental management during COVID 19

a. Dental management not included in emergencies[9]

1. If the dressing involves deciduous or permanent teeth that are treated endodontically and spontaneous removal of the paste dressing occurs, home treatment may involve washing endodontic cavities with water diluted with hydrogen peroxide using a special syringe without needles, followed by application of cotton pliers during mealtime. child.
2. Chronic periapical periodontitis can occur with tooth pain when chewing. For temporary control of symptoms, antibiotic therapy with amoxicillin or cephalosporin and pain relievers such as ibuprofen is recommended, which is additional to temporarily relieve symptoms and delay dental care.
3. Persistence of deciduous teeth, together with eruption of permanent teeth. In this case, parents should be advised to encourage children to chew hard consistency foods such as raw fruits and vegetables, which can stimulate the loss of deciduous teeth by mechanically encouraging complete removal of alveolar support.
4. The occurrence of gingivitis during the eruption of the permanent first molar. It manifests itself with swelling, edema and redness of the gums. This condition affects school-age children, on average between 6 and 7 years. The advice given to parents is to use a cleansing swabs that help remove food debris from the gingiva between the teeth and gums, by rinsing using an anti-inflammatory mouthwash alternately during the day with a local chlorhexidine antiseptic spray, to reduce the inflammatory state and symptoms pain.
5. Malocclusion associated with tooth crowding and with changes in overjet and overbite. Parents must be instructed to delay correction until the end of the epidemic. In cases of increased overjet, a condition that is most often associated with the risk of fractures affecting the upper incisors, it can be recommended to use a mouthguard, which is available at pharmacies.

b. Dental management which includes representing emergencies [9]

Many children's dental emergencies require immediate treatment even during the COVID-19 outbreak. Among these, such as acute pulpitis, acute apical periodontitis, dental trauma and maxillofacial trauma.

Emergency management of pediatric teeth during epidemics must occur by adopting protective measures for health workers and for young patients in accordance with recommendations and guidelines related to the use of effective protocols for infection prevention and control.

1. Personal protective measures for pediatric dentists

Because the main route of transmission of COVID-19 is through aerosols in the air, during epidemic periods, additional protective measures with personal protective equipment (PPE) are recommended for pediatric dentists and other health professionals. These include: surgical masks, face shields, protective glasses, gloves, medical caps, and protective clothing. Evaluate the patient

In this case, it is necessary to check the child's body temperature and ask for a history of travel, especially if the area is prone to COVID-19 epidemics made 14 days before the dental visit but also if there is a history of contact with COVID-19 patients or suspects. Children must be accompanied by a minimum number of people. In addition to measuring temperature, medical protective masks must be provided for patients and their parents or guardians.[9,11]

2. Hand hygiene

Maintaining good hand hygiene from staff, pediatric patients, and dentists is very important especially in the period of transmission of the epidemic from COVID-19. WHO (World Health Organization) recommends 5 important times to wash hands before contact with the patient, before aseptic action, after contact with the patient's body fluids, after contact with the patient, after contact with the environment around the patient.[9,11,12]

3. Gargling

Patients are asked to rinse their mouth with: [8,11,12]

- 0.5% -1% hydrogen peroxide for 1 minute, proven effective against Human Coronavirus (COVID-19). For the oral cavity, use of hydrogen peroxide a maximum of 3%. It is recommended to use 1% hydrogen peroxide as a mouthwash.
- Povidon iodine mouthwash (1%) for 15 seconds - 1 minute, which is proven effective against SARS and MERS. Other studies suggest the use of 0.2% povidone iodine, although it has not been supported by further scientific evidence.

4. Recommendation for care

- Ask parents to leave the operating room.
- Dental care measures are recommended using a rubber dam to reduce the risk of transmission through salivary droplets due to high air pressure when using a handpiece or ultrasonic scaler.

5. Management of orodental traumatic injuries

Conditions associated with a favorable prognosis are represented by immediate reimplantation of avulsion permanent teeth. In this case the success rate is associated with the conservation of teeth in physiological solutions or milk or saliva carefully to rinse them first with running water to decontaminate before being put into the alveoli. In the case of dislocations, emergency treatment consists of repositioning and splinting with adjacent dental elements.

6. General Recommendation

After all types of treatment, adequate environmental disinfection needs to be done. Cleaning the work environment, by disinfection of patient waiting rooms, door handles, tables, chairs, dental units. The floor can be cleaned using 2% benzalkonium chloride which is already sold in the floor cleaning market. [8,11,12]

Prevention of children's oral health during COVID-19

General measures to prevent oral health [9]

For this purpose, it is possible to use a "social" digital platform where pediatric dentists can publish and disseminate behavioral guidelines to protect children's oral health. The main purpose of this guide is to avoid, or at least minimize, the beginnings of an unfavorable situation for the stomatognathic system, thereby improving children's oral health.

Prevention of caries pathology [9]

It is important in this case to inform parents about the carioprotective and cariogenic properties of certain foods. In addition, during epidemic periods where children are forced to spend most of their time at home, it is very important to limit consumption of soft drinks and energy because, in addition to containing high amounts of sugar, their acid content can cause tooth erosion and make enamel tissue less resistant to cariogenic bacteria. Prevention of ECC is therefore very important and requires interruption of wrong eating habits such as administration, especially at night, bottles containing fermented carbohydrate-containing liquids, rather than pacifiers dipped in honey or sugar, wrong actions that are often adopted by parents to encourage child sleep.

Table 1: A Research of Studies on the Effects of COVID-19 in Pediatric Dentistry

No	Title (Author)	Subject	Methods	Results
1.	Dong Y, Mo X, Hu Y, et al.[13] (Epidemiology of COVID-19 Among Children in China) Journal: Pediatrics. 2020;145(6):e20200702.	Pediatric patients with COVID-19 in China.	There are 2135 pediatric patients with COVID-19 reported from January 16th, 2020 until February 8th, 2020 from Chinese Center for Disease Control and Prevention were included.	There were 34.1% laboratory-confirmed cases and 65.9% suspected cases. The median age of all patients was 7 years (interquartile range: 2–13 years), and 56.6% case patients were boys. More children were infected in Hubei province than any other province. Conclusion: The distribution of children's COVID-19 cases varied and the most of the cases were concentrated in Hubei province and surrounding areas.
2.	Cianetti S, Pagano S, Nardone M, Lombardo G.[14] (Model for Taking Care of Patients with Early Childhood Caries during the SARS-Cov-2 Pandemic Journal: Int. J. Environ. Res. Public Health 2020, 17, 3751; doi:10.3390/ijerph17113751.	These treatments also involve Early Childhood Caries due to the fact that this disease affects preschool children.	A literature review was carried out to support a protocol for treating Early Childhood Caries with efficacious procedures. Protocol involves criteria for patient's selection remotely by telemedicine and well-detailed criteria and hygiene procedures to combat against SARS-CoV-2 transmission.	The rotocol proposes innovative caries treatments, named Minimally Invasive Treatments (MITs), well known in pedodontics for their high level of children's acceptance during dental care. Conclusion: ECC is a worldwide health problem. The suspension of dental health treatments during the SARS-CoV-2 pandemic could well affect ECC status in pre-school children, particularly in the socioeconomically disadvantaged groups of populations where the disease has a higher degree of prevalence.
3.	Jin J, Xu Y, Qu Q, Luo W.[15] Knowledge of and attitudes toward COVID-19 among parents of child dental patients during the outbreak. Journal: Braz. Oral Res. 2020;34:e066.	The parents of child dental patients in Shenzhen during the outbreak.	Structured questionnaire containing 10 questions was used. The parents of children (aged 0-14 years) who visited the dental department of our hospital last year were eligible. A total of 148 parents were interviewed by telephone in February 2020 by research staff.	There are 66.22% thought the dental department environment was more dangerous than other public places; 91.89% believed the dental department had a higher risk of virus infection; Conclusion: Parents were concerned about COVID-19, and most of them had talked about it with their children often. In addition, a considerable percentage of them would not take their children.
4.	Credie GB, Coelho AA, Rezende KM.[16] Coronavirus (Covid-19) in Children: History and Pediatric Oral Health. Dental Oral Biology and Craniofacial Research. 2020. 3(4): 1-4. Doi: 10.31487/j.DOBCR.2020.03.06.	Present the epidemiological and pediatric oral health of Covid-19.	Research was carried out in the PUBMED database with the keywords COVID-19 and dental practice, until April 5th of 2020.	Children of all ages appeared susceptible to COVID-19, and there was no significant gender difference. Conclusion: Everyone who has had close contact with an infected individual is susceptible to COVID-19.

Table 2: COVID 19 in Relation to Impact on Children

No.	Researcher's Name	Country	Year	Source	e	Result/Conclusion
1.	Sreekanth Kumar Mallineni, Nicola P. Innes, Daniela Procida Raggio , Mariana Pinheiro Araujo, Mark D. Robertson, Jayakumar Jayaraman	Texas, USA	2020	Wiley, International Journal of Pediatric Dentistry	Coronavirus disease (COVID-19): Characteristics in children and considerations for dentists providing their care17	A survey of 1,191 children in China found 12.3% cases tested po ve for SARS-CoV-2. Analysis of more than 2,000 pediatric patients with suspected or confirmed COVID-19 in Hubei, China, found that more than 90% were declared asymptomatic or with mild to moderate symptoms. Dentists who treat children during this pandemic must adopt universal infection control procedures of the highest standard and fight for this.
2.	Gianmaria F. Aniello Ingenito Tiziana Cantile	Italy	2020	International Journal of Environmental Research and Public Health	Covid-19 Disease in Children: What Dentists Should Know and Do to Prevent Viral Spread. The Italian Point Of View18	There is no evidence of personal protective equipment and dental office disinfection procedures, which are commonly used in dentistry until now, can be quite safe. COVID-19's situation continues to develop every day, pediatric dentists must maintain a high level of awareness to help patients, minimize risk and prevent the spread of the virus.
3.	Yuanyuan Dong, MD Xi Mo, PhD Yabin Hu, MD Xin Qi, PhD Fan Jiang, MD, PhD Zhongyi Jiang, MD Shilu Tong, MD, PhD	China	2020	Pediatrics, Official Journal of The American Academy of Pediatrics	Epidemiology of COVID-19 Among Children in China19	On February 8th, 2020, 2135 children with COVID-19 were reported to the China CDC. Of the patients, 728 were identified as laboratory confirmed cases, and 1407 were suspected cases. Case patients are from Anhui, Henan, Hunan, Jiangxi, Shanxi and Chongqing, which borders Hubei province. Children of all ages are sensitive to COVID-19, and there were no significant sex differences.
4.	Stefano Cianetti Stefano Pagano Michele Nardone Guido Lombardo	Italy	2020	International Journal of Environmental Research and Public Health	Model for Taking Care of Patients with Early Childhood Caries during the SARS-Cov-2 Pandemic20	In fact, even though children affected by SARS-CoV-2 show symptoms less frequently than adults, they can still be carriers and transmit the virus to other individuals. This protocol supports doctors to carry out "secondary prevention" of the effects of ECC cases and their complications. Especially in the interests of vulnerable categories of patients, who at the time of the current global crisis should not be an obstacle in obtaining dental health care. Because if the conditions are left ECC will have a worse impact going ward.
5.	Petra Zimmermann Nigel Curtis	Australia	May 2020	The Pediatric Infectious Disease Journal • Volume 39, Number 5.	Coronavirus Infections in Children Including COVID-19 An Overview of the Epidemiology, Clinical Features, Diagnosis,	ldren are less likely to be affected by SARS-CoV-2, the Chinese Center for Disease Control and Prevention reports that of 72,314 cases reported on 11 February 2020, only 2% in individuals under the age of 19. A total of 34 children from January 19th to February 7th,

					Treatment and Prevention Options in Children21	2020, provided a detailed clinical picture: 65% of children had no congenital disease, 26% had general symptoms and 9% were asymptomatic. The most common symptoms are fever (50%) and cough (38%). In this case, it appears that children have milder clinical symptoms than adults (as has been reported for SARS-CoV and MERS-CoV infections).
6.	Soo-Han Choi Han Wool Kim Ji-Man Kang Dong Hyun Kim Eun Young Cho	Korea	2020	CEP Vol. 63, No. 4, 125–132	Epidemiology and clinical features of coronavirus disease 2019 in children22	In China, a total of 44,672 cases were confirmed on February 11th, 2020, 416 (0.9%)/including children aged 0-9 years, and 549 (1.2%) children aged 10-19 years. In Singapore, a total of 167 cases on March 11, 2020, 6 cases (3.6%) included children aged 6 months-17 years. In Italy, a total of 8,342 cases were reported on March 9, 2020; 1.4% of cases occur in children aged 0-18 years, there are no fatalities. In Australia, a total of 71 cases on 7 March 2020; 2 cases (2.8%) children aged 0-9 years and 2 cases (2.8%) at ages 10-19 years. In Korea, on March 11, 2020, out of 7,755 cases, 75 cases (1%) of children aged 0-9 years and 405 cases (5.2%) of children aged 10-19 years. However, some cases of children can develop into severe illnesses, and the signs and symptoms are not typical.
7.	Marco Aurélio Palazzi Safadi	Brazil	2020	Journal de Pediatria; 96 : (3), 2020	The intriguing features of COVID-19 in children and its impact on the pandemic23	The first report from the US indicates that 80% of deaths occur among adults aged ≥ 65 years, with the highest percentage of severe outcomes among people> 85 years old, and no deaths among people aged ≤ 19 years. In Italy, only 1.1% of the reported initial deaths occur at age <50 years, and there are no children. Interestingly, infants and preschoolers are more likely to have severe clinical manifestations than older children, which is in line with previous child data.
8.	Hao Hong Yuan Wang Hung-Tao Chung Chih-Jung Chen	Taiwan	2020	Elsevier Taiwan	Clinical characteristics of novel coronavirus disease 2019 (COVID-19) in newborns, infants and children24	Children with COVID-19 infection may not show symptoms or experience fever, dry cough, and fatigue, including nasal congestion and runny nose. The first pediatric patient who has 1 year of critical symptoms has intermittent diarrhea, vomiting for 6 days, and fever with shortness of breath for half one day. Radiography shows pneumonia in a child's right lung. Although cases of COVID-19 are rare in infants and

						newborns. The time between entry and diagnosis is 1 to 3 days. Ninth babies have at least one family member is infected, and infant infections usually occur after a family member infection. The nine babies do not require intensive care or mechanical ventilation and do not have serious complications.
9.	Anung Ahadi Pradana Casman Nur'aini	Indonesia	2020	Journal of Indonesian Health Policy	The Effect of Social Distancing Policy on the Covid-19 Outbreak Against Vulnerable Groups in Indonesia25	Data on children in COVID-19 care in Indonesia as of April 15, amounted to 0.1% of the total positive patients. Covid 19 is still considered mild to infect children, so far there have been no cases that claim the child transmits the virus (19). Cases of Covid-9 in infants have been confirmed in newborns, but all infants are infected from mothers who have all tested positive for Covid-19. The youngest baby is declared infected after 30 hours after birth. Children with cystic fibrosis or severe asthma increase in severity if they have been exposed to Covid-19, so that children with comorbidities fall into vulnerable groups that need special monitoring. Thus, it can be said that so far the symptoms of COVID-19 in children are very mild even with almost no symptoms, children also is contagious not contagious.
10.	Isfauzi Hadi Nugroho Dema Yulianto	Indonesia	2020	Journal Al–Hikmah	Application of the Health Protocol Discipline in the New Normal Era in the Early Childhood26	To prevent victims of the Corona virus in early childhood at school, a health protocol is needed that must be obeyed and implemented by all school members including. 1. Always control the body temperature of all children, teachers, and staff at the institution before entering the school environment. 2. Requires all children to wash their hands using the recommended soap. 3. Require wearing masks for all children, teachers, staff and everyone who enters the school. 4. Not interacting physically with other people, not touching/shaking hands. 5. Maintain seat distance between students in class. 6. Reducing class time in class to avoid prolong interaction with others.
11.	Adityo Susilo, C. Martin Rumenda, Ceva W Pitoyo.	Indonesia	2020	Journal of Internal Medicine in Indonesia Vol. 7, No. 1	Coronavirus Disease 2019: Current Literature Review27	The first COVID-19 was reported in Indonesia on March 2, 2020 in a number of two cases. Data for March 31, 2020 showed that there were 1,528 confirmed cases and 136 fatal cases. The COVID-19 mortality rate in Indonesia is 8.9%, this figure is the highest in Southeast Asia. COVID-19 is a new disease that has become a pandemic. This disease must be wary of because of relatively rapid transmission, has a

						mortality rate that cannot be ignored, and the absence of definitive therapy.
12.	Riyanti Djalante, Jonatan Lassa , Davin Setiamarga.	Indonesia	2020	Elsevier, Progress in Disaster Science 6 (2020)	Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 202028	President Joko Widodo reported that there were the first two confirmed cases of COVID-19 infection in Indonesia. On 2 April 2020, Indonesia had reached 1790 confirmed cases, 113 new cases, with 170 deaths, and 112 cases are recovering. The results will come out in 10-30 minutes, much faster than the PCR test (about 1-8 hours, depending on the method). Furthermore news from the media shows that the Indonesian government ordered 500,000 test kits from China.
13.	Indonesian Pediatrician Association	Indonesia	2020	Indonesian Pediatrician Association Edition 2	Clinical Guidelines for the Management of COVID-19 in Children29	Until March 19, 2020 there were 209,839 cases of COVID-19 with more than 170 countries infected with COVID-19. Death cases reached 8,778 with a case fatality rate of 4.18%. Incidence of COVID-19 in children is not as much as adults, and most children who are confirmed to be COVID-19 get it from the family. According to Wu, et al (2020) the incidence of COVID-19 in children aged 10-19 years was 549/72,314 or 1% of all cases; while the age group. Schematically, the determination of the status of children and their follow-up can be done with 2 approaches, namely based on a history of living or traveling to an infected country or area with local transmission in Indonesia or based on contact with ODP, PDP, and COVID-19 confirmation cases.
14.	Ritwik Ghosh Mahua J. Dubey Subhankar Chatterjee Souvik Dubey	India	2020	Minerva Pediatrica 2020 June;72(3):226-35	Impact of covid-19 on children: special focus on the psychosocial aspect30	Children during quarantine will feel the same stress, anxiety, stress and feel insecure because of this situation. Schools offer freedom, scope of interaction with adults and others, psychological comfort. Children are disappointed with the sudden termination of school, cancellation of travel schedules, confinement at home and fear of uncertainty related to the ongoing pandemic. Although the formal education chart shows a decline, children are expected to return from this situation with a gentle nature, attention and responsibility.

DISCUSSION

Management of pre-school patients with *Early Childhood Caries* have proposed operative protocol. Very important period for oral health is pre-school age as it commonly coincides with the onset period of caries. Better managing of pre-school oral health means setting the child that will protect them in adulthood. High prevalence and the rapid progression of ECC towards its infectious and painful complications motivate the choice for maintaining a continuous dental treatment regime.[31,32,33,34,35]

The absence of ECC management an increase in the burden of oral disease and the need for treatment are certainly expected after the pandemic with enhanced costs for public health as well as for families. In addition, the progression of ECC determines an increase in the number of dental extractions with a consequent impaired chewing function and an increased risk of malocclusions. Another element that aggravates the oral health condition of children is the sedentary life to which they are obliged during the SARS-CoV-2 pandemic.[36,37,38,39]

The characteristics of epidemiological spread and clinical future of COVID-19 in children haven't yet been thoroughly elucidated. The incubation period as 2 until 14 days and 7 for everyone, and because children can be asymptomatic or present with mild, all child patients and parents should be considered as potential carriers of COVID-19.[40,41,42,43]

Validated rapid-response tests to COVID-19 infection dental pediatric patients before the start of any dental emergency procedures should be useful. Since dental procedures derived droplets and aerosols, containing microorganisms from a potential infected child, and it can contaminate environmental surface.[44,45,46,47,48,49,50] During dental procedure on pediatric patients should be adopted. Before the start of each dental treatment, members should put all the instruments and equipment required into a tray to avoid environmental contamination during the procedure.[51,52,53,54,55]

For children able to split, pre-procedural mouth rinse with 0.5%–1% H_2O_2 should be used, as it has non specific virucidal activity against corona viruses. However, in extreme situations, an extraction may be the preferred treatment option for children with pulpal symptoms to reduce the aerosol generating procedures.[56,57,58,59]

CONCLUSION

In the current conditions associated with COVID-19, it is necessary to re-evaluate the activities of a pediatric dentist. In this regard, the possibility of communication and education from parents must be considered both regarding general preventive measures for oral health. On the other hand, if faced with a dental emergency, immediate intervention is needed, adherence to the strict protection protocols of each individual involved and environmental disinfection.

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