

THE DENTAL MEDICINE SECTOR IN THE AGE OF THE COVID-19 PANDEMIC – RECOVERY BETWEEN RISKS AND CHALLENGES

Andra-Teodora Porumb¹
Adina Săcara-Onița²
Cristian Porumb³

DOI: <https://doi.org/10.31410/LIMEN.2020.101>

Abstract: *In this paper we will show how the COVID-19 pandemic has affected one of the sectors that have undergone a booming development in recent years, namely the sector of dental medicine. This is an industry that includes numerous and diversified activities: treatments and surgical interventions in dental practices and clinics, dental aesthetics interventions in luxury clinics, the organization of specialization courses, conferences and congresses, the development of extremely innovative procedures and materials. Dental tourism has also had a spectacular trend, especially in Eastern European countries. Within a very short period of time, this highly profitable field, but which presents a huge risk of transmitting potential viruses, has recorded significant financial losses. In March 2020, in some European countries a lockdown was imposed by governmental decree or ordinance, all private practices having ceased their activity, whereas in other countries a significant number of clinics closed on their own initiative, and those remaining open recorded a staggering decrease in the number of patients. Courses, conferences, and congresses have been cancelled one after another throughout Europe. As a result of the cancellation of many flights, the activity in the branch of dental tourism has ceased almost entirely. For two months, an extremely small number of medical units, especially hospitals, were reorganized to provide care in dental emergencies, according to a very strict protocol to limit the risk of contamination. In view of resuming their activity as of May, professionals in the sector had to meet several severe protection conditions, regulated by institutional documents by the National Orders/Colleges of Dentists. In October, in the face of the second wave of the pandemic, the governments of European countries took less restrictive measures in an attempt to avoid a new lockdown and the decrease in the supply of goods and services to the population to such a great extent, so this time, governments have not closed private practices, despite the fact that in some countries the beginning of November has brought about a new isolation – albeit a partial one – and a renewed closedown of some businesses. We will analyze, in the context of the ongoing pandemic, the situation of this sector in several European countries. Given that the demand for dental services has only decreased very little, professionals in the sector have tried in various ways to continue their work so as not to sacrifice the dental health of the population. The risk/benefit ratio is very hard to manage in this field, so precautions, prevention, and protection measures in dental practices remain of the utmost importance. If the branch of organization of courses, conferences, congresses can compensate to a certain extent the sharp decline in revenues during the lockdown period by moving the activity on online platforms, the branch of dental tourism is still suffering massively, and the possibilities of recovery are greatly reduced. Dentists remain the most exposed to risks. They are facing medical and*

¹ University of Oradea, Faculty of Economic Sciences, Department of International Business, 1 Universităţii Street, Oradea, 410087, Bihor, Romania

² University of Oradea, Faculty of Economic Sciences, Department of International Business, 1 Universităţii Street, Oradea, 410087, Bihor, Romania

³ University of Oradea, Faculty of Medicine and Pharmacy, Department of Dental Medicine, 10 - 1 Decembrie Square, Oradea, 410073, Bihor, Romania

financial concerns and have to make final treatment decisions amidst an uncertain and dangerous situation.

Keywords: *Dental medicine, COVID-19 pandemic, Crisis management, Risk, Dental tourism.*

1. INTRODUCTION

The global economy has been deeply affected by the Covid-19 pandemic. Most business sectors have endured huge losses in a very short period. Except for Sweden, where it was considered more important to continue business activities while the measures to contain the risk of contamination and spread of the infection (hygiene measures and social distancing) were communicated to the population only as a recommendation, about 45 countries imposed a two-month lockdown (i.e. from March 12-15 to May 11-15, 2020) and shut down most activities.

Data collected by governments showed that the measure of a mandatory lockdown has paid off in almost all European countries, even in those that have faced a very large number of infections and deaths (i.e. China, Germany, Spain, Italy, France), so the infection rate decreased in May; nevertheless, the lockdown failed to stop infections. The recent developments make it difficult for specialists to forecast and estimate future evolution.

The decision to implement traffic restrictions and interrupt business activities have had multiple consequences in the economy, the most striking being the following ones:

- serial bankruptcies, especially in the case of small and medium enterprises;
- the lowest employment rate in the last decade;
- a rising unemployment;
- higher burden for the state budget as a result of supporting social and economic protection measures (financial aid granted for SMEs and individual entrepreneurs, partial or technical unemployment during the quarantine and post-quarantine period);
- increase of public debt.

Considerable losses have been sustained in tourism and transport, in the hospitality industry (hotels, restaurants and cafes sectors), in the creative cultural sector, and in the sports industry. Despite the recovery plan for Europe *Next Generation EU* (approved in July 2020), which provides for a fund of EUR 750 billion of which EUR 390 billion will be allocated as subsidies to the states most affected by the pandemic, economic recovery is a very difficult process, with many private businesses at risk of extinction. Few business sectors have increased their income during the lockdown period and in the following months (e.g. postal and courier services, catering services, digital advertising).

2. MOTIVATION AND SOURCES

Most of the research and studies carried out so far by economists and financial specialists in 2020 focused on ways to recover in the aforementioned business areas. However, there is little work dedicated to one of the sectors most affected by the pandemic, namely the dental medicine sector.

While being considered at the beginning of the pandemic to involve activities with a high risk of infection (it is mainly about procedures during which aerosols are formed), the dental medicine sector was directly targeted by the first decisions taken by the governments of several

European states. Thus, at the beginning of March 2020, in many European countries it was ordered by presidential decrees, by ministerial ordinances and, in some cases, by military ordinances, the closure of dental practices and clinics:

- In France the dental practices were closed on 16th of March 2020;
- in Romania, on 21st of March 2020, the first article of the Military Ordinance no. 2 communicated by the Minister of the Interior provided for the temporary suspension of medical practice in the dental offices;
- Portugal declared a national state of emergency on 18th of March 2020; one of the measures ordered was the closure of dental practices.

Such measure was not taken during any of the previous economic crises. For two months, dental emergencies were provided only by hospitals and a few private dental practices, which were forced to meet very strict hygiene and safety requirements.

In addition, in March, the Italian Government decided to close all but the main economic activities in Italy (logistics and transport, pharmacy and health, energy and agro-industry, banking, postal and financial services) and recommended dental offices and clinics to perform only emergency medical interventions.

Also, the professional associations of dentists in some European countries have recommended the temporary suspension of activity in private clinics, even if governments did not impose such measures. In a few countries, i.e. Denmark and Norway, the state of emergency declared on 12th of March 2020 did not involve the closure of dental offices and clinics, but many private clinics closed as a preventive measure to contain the spreading of the virus.

In Germany, the dental offices remained open, while being imposed few additional protection measures and the reduction of certain procedures (use of the dental turbine). However, ultrasonic descaling was banned.

In late May, economic activity resumed in Europe, but the period that followed was a very difficult one, full of risks, providing little forecast information, and the medical practice was carried out against the background of increased spending on protective materials, additional measures to control infections and depletion of financial resources of dental offices and clinics.

In many European countries, after the March-May lockdown period, governments have imposed a state of alert, issued rules and regulations, released through the professional councils of dentists, on measures to prevent and contain COVID-19 infection, at endowment with personal protective equipment, increased obligations to disinfect the medical offices in compliance with strict health protocols.

In addition to dental services, there is a wide range of related activities that have endured significant losses because of the health crisis and restrictive measures taken by governments: the organization of specialization courses, conferences and congresses in dentistry, production and marketing of dental materials and equipment, activity of dental laboratories.

In this paper, we will mainly review the situation of private dental practices and clinics against the background of impossibility to put an end to health crisis in March-May, the impact of restrictive measures taken by European governments during the lockdown period and after 15th of May and the way in which entrepreneurs in the dentistry fields could withstand throughout

this period, the end of which cannot yet be foreseen, and could overcome the obstacles created by the COVID-19 crisis.

It is worth mentioning that, even though the dental medicine sector seemed one of the most profitable sectors - with an impressive number of innovations and a rapid development - many dental clinics were already facing many difficulties before the spread of coronavirus:

- many dental clinics did not fully recover after the 2008-2009 economic crisis;
- the fierce competition in this field means that the revenues of the clinics are not always as expected;
- entrepreneurs in the field of dentistry must constantly invest significant amounts in state-of-the-art equipment, in training courses for doctors, in order to be able to ensure high quality dental care and services;
- the costs for the implementation of safety measures adequate to this activity, even under normal conditions, are relatively high.

Moreover, the disruption of the medical practice for a period of several months is devastating for any business; the recovery is a long process, which requires patience, perseverance, financial resources and always an updated management and marketing expertise.

We used as sources the European documents drafted under the guidance of the Council of European Dentists (CED), national legislations (decrees, ordinances, decisions of state authorities), and recommendation guidelines developed by dental professional associations.

3. RESTRICTIONS ENFORCED AFTER 15TH OF MAY

After the first stage of combating the pandemic, a state of alert was imposed in mid-May in many European countries. The hope for a speedy recovery in the dental sector is dashed by the second wave of the pandemic. Since September 2020, the daily number of infections and fatalities has been steadily increasing all over the world.

Israel was the first country to return to a period of *strict lockdown* imposed by the government and to traffic restrictions. Thus, between 18th of September 18 and 9th October 2020, schools, shops and many private companies, restaurants, salons, and gyms were shut down again. Unlike the first quarantine period, this time private dental clinics remained open, so as not to limit medical services to emergency cases only.

In addition, given the extremely high infection rate faced in September-October, France imposes restrictions on large cities and a night traffic ban. Given that the effects were not as expected, on 30th of October, the President of France announced a new period of *general lockdown* for one month (30th of October 30 – 1st of December). Here, too, there is a less strict lockdown than in the early 2020, and private dental clinics remain open. Germany has imposed a *light lockdown* on 2nd of November for a period of 4 weeks and does not ban dental practices either.

Hoping to slow the spread of the virus, in Ukraine the prime minister announces the quarantine over the weekend, valid as from 14th of November 14 the end of this month.

In order to prevent blocking the economy, in November many European countries avoided imposing new periods of general lockdown, while opting for quarantine imposed by region, depending on the rate of daily infections (e.g., Spain, Italy, Romania).

In brief, we may notice that compared to the first period of lockdown, private dental offices and clinics may operate throughout Europe.

According to the Council of European Chief Dental Officers (2012), the analysis of the estimated percentage of GDP allocated to oral health in 2010 in different European countries shows that Italy, Germany, Ireland are the top three countries, while Poland, Lithuania and Romania are ranked last in this hierarchy. Recent statistics show that Romania⁴ ranks last in the European Union in terms of oral health; therefore, the decision to quarantine certain regions and not to shut down the dental offices in September-November is beneficial.

In fact, studies conducted by dental associations in several countries have shown that, under any circumstances, good hygiene and proper disinfection have always been provided in dental offices, strict safety regulations have been observed and strict health protocols have been applied there.

The additional measures imposed by the authorities to prevent infection with COVID-19 entail high additional costs, as the prices of protective equipment have increased significantly in recent months. These costs will be found either in the increase of fees for dental services, or in a loss of profit should the pre-pandemic fees be maintained.

4. CHALLENGES FACED BY DENTAL OFFICES

The consequences of all these events, restrictions, and regulations for dental practices, which generally operate as sole proprietorships and as limited liability companies, have been numerous and on multiple levels:

- a) Financial,
- b) Occupational,
- c) Medical.

a) Financial issues

The closure of private practices in March-May 2020 led to the plummeting of incomes of dentists and dental auxiliary staff. Subsequently and during the quarantine periods of September-November, they faced the difficult situation consisting of lower income and higher expenditure.

The main factors that triggered the decrease of income were, inter alia, the following ones:

- complete shutdown of the dental practice during March-May 2020, following the official decrees and ordinances;
- a decreased number of patients after 15th of May compared to the period before the onset of the pandemic;
- abandonment of complex dental treatment plans;
- reduction of income among many patients who have been affected, at their turn, by the health crisis.

⁴ In Romania, the dentistry field receives only 1% from public budget allotted to health.

The number of patients has dropped dramatically because of:

- the two-month suspension of the medical practice in the private dental offices;
- additional procedures to be performed in dental offices in order to prevent the spread of COVID-19 pandemic;
- allotting enough time between medical appointments for proper cleaning, disinfection and ventilation of the dental office after each patient;
- performing a preliminary screening - by phone or through application running on the dental clinic website;
- patients' screening on arrival in the dental office;
- postponement of urgent medical interventions and non-essential treatments;
- closing the borders and suspending the flights, which determined the foreign patients to stop travelling for medical tourism purposes (both in the quarantine and post-quarantine period).

Dental office expenditures have increased due to the need to:

- equip the office with additional means to combat viruses and bacteria (devices for sterilization of air microflora and air filtration, UVC ultraviolet light disinfection systems, nebulizers, disinfectants) and testing equipment;
- purchase additional special protective equipment for medical staff (overalls, disposable medical gowns, visors, booties) and for patients (masks, gowns, booties);
- make available hydro-alcoholic solutions to patients;
- make changes to the dental office organizational structure and flows: creation or reorganization of a waiting room, organization of special circuits for patients in the office;
- acquire specialized computer applications that can help in establishing the diagnosis through telemedicine;
- perform additional operations: screening of patients, performing remote-consultation, proper completion of the patient's dental file, completion of a questionnaire to assess the patient's general health condition.

b) Occupational issues

While facing the complete plummeting of their revenues during the lockdown period and a poor recovery of their revenues in the following period, the doctors who own dental offices have faced all the financial problems mentioned above. Consequently, maintaining the human resources needed to operate the offices has been a challenge by itself.

In April-May, in almost all EU member states (except Bulgaria, Finland, Iceland, Ireland and Switzerland), the state allocated resources and financial aid:

- according to the *partial unemployment scheme* conceived by the French government, in France, an employee benefits from 70% of the gross salary and 84% of his/her net salary;
- in Romania, the technical unemployment benefit is 75% of the gross salary, but it cannot exceed 75% of the gross salary per economy (RON 4,000, i.e. roughly EUR 800).

In Italy, on 13th of March 2020, the Board of Directors of ENPAM (National Insurance and Assistance Institute for Physicians and Dentists) asked the government for assistance and social protection for doctors and dentists affected by coronavirus (i.e. by maintaining the remuneration of quarantined public doctors and expanding protection to freelancers). For the latter, a monthly aid of about EUR 2,400 was confirmed should they were forced to interrupt their practice due to the quarantine imposed by the authorities.

Since June, entrepreneurs, including those activating in the dental medicine sector, have had to deal with the issue of maintaining their own offices and paying their staff - even if they have not yet managed to fully recover financial loss incurred with their dental offices.

In addition, they were placed in the position of conducting training for the staff in charge with welcoming the patients and for dental nurses who were given additional tasks: carrying out the pre-screening of patients by phone, screening at the entrance to the dental office, body temperature control, documentation management (application of COVID questionnaires).

c) Medical issues

The health of the population has suffered throughout the year 2020. Access to specialized treatments has been restricted, which will have negative effects in the long run:

- during the lockdown period, only emergency treatments were performed in hospitals and in a very small number of private medical practices;
- even in countries where dental activity has not been stopped by state authorities (e.g. Germany, Denmark, Norway, Sweden, Finland), many doctors have decided to close offices (as a precautionary measure or due to the impossibility of meeting the functional requirements);
- after the lockdown period, patients were very reluctant to request an appointment with a doctor, given the fact that the number of infections could not be stopped;
- restricting access to dental care has determined not only the aggravation of existing oral health problems of population, but also the impossibility of early detection of possible serious problems (i.e. oral cancers);
- dental treatment postponement will have consequences on the overall health condition of the patients and on the quality of their life.
- In fact, as provided by the Platform for Better Oral Health in Europe:
"Oral health is a determining factor for quality of life, essential for well-being, and an integral part of general health" (source: <http://www.oralhealthplatform.eu/>).

5. PRIORITY RECOVERY ACTION FOR DENTAL OFFICES AND CLINICS

The Council of European Dentists (CED)⁵ argues that the continuation of dental activity during the pandemic is of paramount importance.

In our opinion, recovery - especially in the case of private dental offices - is a long and difficult process, which involves the corroboration of skills and competencies at the highest level, in multiple fields (finance, management, marketing, law, IT), a special attention to be paid in the elaboration of action plans, patience and perseverance, and permanent vigilance.

Mitroff (1987) emphasizes the importance of early warning signals in crisis management: "To prevent some major crises, organizations need only learn to read these early warning signals and respond to them more effectively" (1987: 285). However, in the case of this crisis, we cannot speak of such warning signs, given that previous epidemics (seasonal influenza, SARS virus) did not have such a devastating impact and did not require such severe restrictive measures. Mitroff considers that "effective crisis management is a never-ending process, not an event with a beginning and an end" (1987: 285).

⁵ A total of 32 national federations and professional councils from 30 European countries joined the Council of European Dentists association. The CED advises the European Commission on issues related to the dental profession.

According to Roger P. Levin (2020), an American specialist in dental office management, during and after a crisis the management of dental offices is very different from the daily management. Levin finds four critical factors for the recovery of dental offices: income, cash flow, expenditures, and advisers.

- First, dental offices must take measures to generate income urgently. For this, several steps are important to be taken (weekly analysis of income and expenditure, finding the break-even point) and measures (extending the work schedule, reducing staff leave, giving priority to the most productive cases, focusing on a large volume of simple treatment plans).
- If revenues increase, the dental office gain *cash*, which allows it to "operate from a position of strength." Levin argues that a dental practice should have a 4-month cash reserve available (placed in a separate reserve) to support its activity in the event of unforeseen events. In contrast, according to the analyses performed by his consulting firm, in the context of the COVID-19 pandemic most of the dental clinics (90%) had cash available only for one month.
- For a successful recovery, dental offices must be able to purchase the necessary materials, hire appropriate staff to resume and coordinate dental practice, manage appointments, and perform specialized procedures, or retrain its existing staff according to new needs; in brief, they must have the capacity to make expenses to generate income. On the contrary, in the current situation, most dental offices have tried to cut their costs.
- The sanitary crisis was an unforeseen, unprecedented element; that is why the dental offices that have resorted to *external assistance and consultancy* have had greater chances of recovery. There is a need for financial advisers to obtain a possible government aid and loans, for the management of gains and losses; there is need for lawyers specialized in labor law to manage staffing and unemployment issues: there is a need for accountants for calculating taxes and managing related documents.

Given the timing of the health crisis and the demands for social distancing, the dental office manager could also turn to IT consultants. We believe that *access to digital solutions and innovation* are essential for the speed recovery of dental practices.

The online presence of the dental offices is paramount:

- any dental office needs a website: to attract new patients, retain them, cultivate a positive experience (Porumb, 2017, 2020), provide information on dental services;
- new functionalities must be placed in the already existing websites, for example a webpage for remote, online dental consultations (given the need for patients to interact with their doctor even if the dental office would be closed or to have smooth access to medical recommendations and medication in the forthcoming period);
- it would be also advisable that a first dental consultation in order to sort urgent cases also takes place online;
- one of the dental office staff could send - via email, WhatsApp, or other social media platform - messages to inform patients about the resumption of dental office activity, working schedules, importance of dental treatment, and consequences of neglecting the treatment.

In this way, a digital connection between the doctor and the patients is created and developed, access to medical care is simplified, time is saved, operational flows are improved, appointments are managed to prevent patients crowding in the dental office.

However, the dental activity takes place mainly in the office. Therefore, it is extremely important to develop strict hygiene and health protocols and manifest increased vigilance throughout the next period. Good practices, attention paid to detail and even testing of patients will help to minimize the risk in dental offices, to practice a quality dentistry focused on the well-being of the patient. The doctor will also make decisions regarding the selection of procedures to be followed or the appropriateness of performing multiple treatments in one patient in a single session.

Finally, partnerships could be concluded or, in some cases, renewed with industries such as tourism to provide medical facilities to clients, with the academic environment to be constantly up to date with new studies and research in the field, and for the practical application of possible solutions provided by scholars.

European Commissioner Paolo Gentiloni predicted a return to a "prepandemic level" of the European economy by 2023. Thus, in his opinion, the pandemic would have cost Europe about three years of growth (*Le Figaro*, 6 Nov. 2020, p. 22).

6. CONCLUSION

The COVID-19 pandemic is an event whose amplitude and gravity has endangered businesses, jobs and incomes of citizens, but also the short, medium and long-term health of the population. Given that people and businesses have never faced a similar crisis in the past, it is very difficult for entrepreneurs to overcome the problems they face every day to save their business.

In the dental medicine sector, especially the activity of private dental offices, in developing an action plan for overcoming the crisis effects, doctors and managers in the field must constantly oscillate between risks and benefits, needs and priorities, tradition and innovation, immediate profit and the long-term gain, while being guided all by a basic principle: responsibility. They must be proactive and surround themselves with advisers from many fields to guide them in choosing the best strategies and implementing the most appropriate and innovative methods for recovery and carrying on their business under the special circumstances and uncertainties generated by the pandemic.

Certainly, in the future, some of the changes made now will become rule, and the activity will improve thanks to the measures and reforms applied at present.

REFERENCES

- Booth, J. (2020) "Lăsați stomatologii să lucreze în continuare – lecții din al doilea blocaj israelian", *Dental Tribune*, 26.09.2020, <https://romd.dental-tribune.com/news/lasati-stomatologii-sa-lucreze-in-continutare-lectii-din-al-doilea-blocaj-israelian/>.
- Cabut, S. (2020) "« Cette crise est placée sous le signe de l'émotion ». Le psychiatre Michel Lejoyeux décrit l'éventail des troubles psychiques liés à la pandémie de Covid19", *Le Monde*, 27.11.2020, p. 10.
- Cooper, N. (2020) "Serving your patients in a Post-COVID-19 World", *Compendium of Continuing Education in Dentistry*, 41(6) June 2020, <https://www.aegisdentalnetwork.com/cced/2020/06/serving-your-patients-in-a-post-covid-19-world>.

- Jeffcoat M., Sollecito T. (2020) “Evidence, Junk Science, and Hope in a Time of Pandemic: On the Front Lines in Dentistry”, *Compendium of Continuing Education in Dentistry* 41(8), September 2020, pp. 420-424.
- Levin Roger P., DDS (2020) “Four Priorities for a Successful COVID-19 Recovery”, *Compendium of Continuing Education in Dentistry*, 41(7) July/August 2020, <https://www.aegisdentalnetwork.com/cced/2020/07/four-priorities-for-a-successful-covid-19-recovery>.
- Lo Nigro G., Bizzoca M.E., Lo Muzio L, Campisi G. (2020) „The Management of Dental Practices in the Post-COVID 19 Era: An Economic and Operational Perspective”, *International Journal of Environmental Research and Public Health*
- Mastrobuoni, T. (2020) « Germania, "Lockdown light" dal 2 novembre. Merkel: "Situazione molto seria" », *La Repubblica*, 28 ottobre 2020, https://www.repubblica.it/esteri/2020/10/28/news/germania_ok_al_pacchetto_frangiflutti_dal_2_novembre_chiusi_bar_ristoranti_e_palestre-272175712/.
- Meng L., Hua F., Bian Z. (2020) “Coronavirus Disease 2019 (COVID-19): Emerging and Future Challenges for Dental and Oral Medicine”, *Journal of Dental Research*, Vol. 99(5) 481–487.
- Mitroff Ian, I., Shrivastava, P., Udwadia F.E. (1987) “Effective Crisis Management”, *The Academy of Management Executive*, Vol. 1, No. 3, pp. 283-292.
- Munteanu, A. (2020) CMSR: “Măsuri pentru prevenirea infectării cu noul coronavirus în cabinetele stomatologice”, *Dental Tribune*, 18.03.2020, <https://romd.dental-tribune.com/news/cmsr-masuri-pentru-prevenirea-infectarii-cu-noul-coronavirus-in-cabinetele-stomatologice/>
- Porumb, A.T. (2016) « Mise en thème de l’identité organisationnelle: le cas du site web », *Analele Universității din Oradea (Seria Științe Economice)*, tom XXV, Vol. II, pp. 149-157.
- Porumb, A.T., Porumb, C. (2017) « Stratégies de construction d’un discours positif. Le cas des sites web des praticiens de l’art dentaire », *Journal of Languages for Specific Purposes*, n° 4, pp. 77-92.
- Porumb A.T., Porumb C., 2020, „Communication devices. The dentists’ case study / Dispositifs de communication. Le cas des praticiens de l’art dentaire”, *Analele Universității din Oradea (Seria Științe Economice)*, tom XXIX, pp. 567-574.
- Redazione FNOMCEO (2020) *La prevenzione non si ferma. Continua la campagna dell’Associazione Nazionale Dentisti Italiani #DalDentistaInSicurezza*, 04/11/2020, <https://portale.fnomceo.it/la-prevenzione-non-si-ferma-continua-la-campagna-dellassociazione-nazionale-dentisti-italiani-daldentistainsicurezza/>.
- Savini, G. (2020) “Il modello svedese per la gestione di Covid-19 ha funzionato?”, 11.11.2020, <https://dottoremaeveroche.it/il-modello-svedese-per-la-gestione-di-covid-19-ha-funzionato/>.
- Secon Holly, Su Ruobing (2020) “Sweden's per capita coronavirus death toll is among the highest in the world — a sign its decision to avoid a lockdown may not be working”, *Business Insider*, 22.05.2020.
- Tosseri, O. (2020) « Covid-19: l’Italie, malade de son régionalisme », *Les Échos*, 27/28.11.2020, p. 10.
- UFFICIO STAMPA FNOMCEO (2020) *Odontoiatria al tempo di Covid-19, OMS emette linee guida. Iandolo (CAO nazionale): “Misure che in Italia, su nostra iniziativa, abbiamo già messo in atto tra marzo e aprile”*, 14/08/2020, <https://portale.fnomceo.it/odontoiatria-al-tempo-di-covid-19-oms-emette-linee-guida-iandolo-cao-nazionale-misure-che-in-italia-su-nostra-iniziativa-abbiamo-gia-messo-in-atto-tra-marzo-e-aprile/>.

- Webber, C. (2020) “Six Productivity Mistakes That Can Hinder a Dental Practice”, *Compendium of Continuing Education in Dentistry*, 41(10) November/December 2020, https://www.aegisdentalnetwork.com/cced/2020/11/six-productivity-mistakes-that-can-hinder-a-dental-practice?page_id=434.
- CED, PRESS RELEASE, SAFETY OF DENTISTRY IN TIMES OF COVID-19* (2020) <https://mailchi.mp/b00ea6db3085/press-release-safety-of-dentistry-in-time-of-covid-19?e=bbc6dc63636>.
- COVID-19 e la gestione dello studio odontoiatrico: prospettive economiche e operative*, 30.11.2020, <http://www.odontoiatria33.it/approfondimenti/20179/covid-19-e-la-gestione-dello-studio-odontoiatrico-prospettive-economiche-e-operative.html>.
- Enpam rinvia i contributi e vara indennità*, 2020, <https://www.enpam.it/2020/coronavirus-enpam-disponibili-a-interventi-straordinari/>.
- European Union Agency for Fundamental Rights (FRA) (2020) *Coronavirus pandemic in the EU – Fundamental Rights Implications. Country: Romania*, https://fra.europa.eu/sites/default/files/fra_uploads/ro_report_on_coronavirus_pandemic_june_2020.pdf.
- Guide. Réponses rapides dans le cadre du COVID-19 - Mesures et précautions essentielles lors des soins bucco-dentaires après le déconfinement*, https://www.has-sante.fr/upload/docs/application/pdf/2020-05/rr_391_soins_bucco-dentaires_apres_le_deconfinement_14_05_20_mel.pdf.
- Indicazioni operative per l'attività odontoiatrica durante la fase 2 della pandemia Covid-19*, http://www.salute.gov.it/imgs/C_17_pubblicazioni_2917_allegato.pdf.
- <http://www.oralhealthplatform.eu/>
- <http://www.oralhealthplatform.eu/news/platforms-covid-19-statement/>
- <https://portale.fnomceo.it/>