

Post-COVID-19 Dentistry - Knowing its Unknown Future

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Futurology can never be an exact science, especially at the best times. To determine whether we predicted correctly or otherwise, we have to wait and live healthy for a very long time to evaluate what we had predicted. The COVID-19 pandemic, in relation to dentistry has caused so much concern that we all have many themes to write on. The situation is so unpredictably evolving, that any topic one embarks to write on, rapidly gets insignificant. But as said, reflections on any chosen area do really resonate with the spirit of what we are living through in these extraordinary times.¹ A recent publication predicted some immediate and heavier impacts that the COVID-19 outbreak currently is having on dentistry and the dental healthcare professionals.² As such some suggestions and recommendations based on personal feeling were offered.

Before the COVID-19 pandemic, no one could have seriously thought that it would bring so much financial, social and healthcare upheaval on global level. During the current pandemic, we witnessed dentistry as anything it used to be and it seems the situation may stay the same for some time in future. In fact, dentistry suffered so severely, so unexpectedly and so dramatically. The closure of dental practices, the delivery of education, training and assessment all had immense impacts and challenges that required immediate responses.²⁻⁴ In such a scenario, it is important for profession to plan pre-emptively for the challenges ahead.

Looking at the future for dental profession, it appears that most of us see a confused state and picture that is most likely to stay same for some years to come. Prior to the COVID-19 pandemic, everyone had been witnessing a significant rise in the global dental market with an ever-increasing trend for further growth. However, since this pandemic, over the past few months, we are witnessing a really unfortunate perfect storm where leaders in professional bodies and health regulating ministries are clueless about a measured response. In fact, we the dental health professionals and the entire dental profession are experiencing a roller coaster ride.

Both dentists and dental healthcare workers (HCWs)

and patients have fear of getting infected. This fear is in part a direct result of many deaths of HCWs including transmission to dental HCWs.⁵⁻⁷ Among us the aged dental practitioners are likely to be at higher risk. Although the dynamics of SARS-Cov-2 transmission are yet to be understood, but considering the relatively higher density of the COVID-19 cases, in the urban locations, DHCWs working in the urban dental settings, might be at higher risk compared to those in rural locations. Some 25% dental practices have been reported to have considered closing. Some two-third practices had been predicted as not sustainable beyond 3 months.⁸ Self-employed dental practices are already suffering and calling for immediate support from governments. To reflect truly, the pandemic has impacted the entire spectrum of dental practice with some of these including; extreme down-trends in finances and liability related issues, increased hassle, increased vulnerability of own health as dental practitioner, low patient volumes, no elective surgery, increased costs for PPE and a profound fear of their timely availability; and more importantly total redesigning of dental operatory and adoption and incorporation of systems and platforms to manage patient staying remote from practice.²

Many dental health professionals are thinking of early exits and retirement as a more attractive option. The fear of another COVID wave this fall or next year, when further financial support may be limited, a kind of coup-contre-coup to practices as dental practices struggle to recover.² In fact, new attitudes to a career in dentistry are being developed.² It is likely that the number of dental students will reduce as well as those intending to register as dental practitioners. Private hospitals and corporations are likely to be more interested in buying dental practices from those practitioners who opt to leave early. Obviously, there would be a great concern about what could happen to and what to do for them. A proposed option for them might include their redeployment to alternative roles and careers.

In such a situation, doing nothing is not an option. Let us hope that there is availability of strong leadership. During this pandemic, most of us are sheltering in homes and keeping in a locked-down state, none of us have been sleeping and have been really wondering, thinking and working from home. In fact, it has provided many of us the

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best time, with the greatest focus and attention, with everyone looking for new and fresh ideas, a time to think for change and respond. Everyone is looking to transform and innovate and get it right. Recently, Bill Gates said that pandemics remind us that helping others is not just the right thing to do but it is also the smart thing to do.⁹

We must admit that we remained so pre-occupied in profiting from advancements dentistry had made that we totally forgot that after AIDS, Ebola, SARS, MERS and Zika epidemic, there could be a pandemic called the COVID-19. We really never thought of being so engulfed and so challenged. Suddenly, we all faced a dentistry totally different; entirely going virtual with no face-to-face contact to provide dental care, dental education and training, interacting with and seeing our patients on the screen and examining them and diagnosing their conditions with reduced need for their physical presence. Patients want to know that going to dentist is safe and how long the policy of "avoid, restrict and abbreviate" will remain a practice. We resorted to the same approach for our trainees so they could continue gaining skills and competency in patients' care, patient examination and diagnosis. There is the very real possibility that things will ever be the same. Perhaps, if we do things right, we can change all this for the better.

Need for new generation of dental practitioners trained for the way they will practice dentistry from now on is the voice we hear. Also is the need for retraining those old fashioned enough like me, who, for one or other reasons strongly believe in the benefits of providing in person dental consultation and care to patients and are reliant on the need for having presence of the patient for determining the severity of dental and orofacial pain and other conditions better diagnosed by physical observation. We now see that most initial level patient-dentist interaction could occur through the use of tele-dentistry platforms and over a video connection and smart or conventional phone. This is not exactly the usual office visit we all were trained on. Subsequent in person visits will follow the safety concerns including; keeping social distance in clinical and patient waiting areas, following thorough screening protocols for patients seeing and treating them while we are cloaked in PPE.

Several considerations to restructure the dental training programs are needed. These include the present oral microbiology syllabus with more focus on infections transmissible through air, respiration, oral fluids and contact. Training of dental students is needed in aspect of respiratory hygiene, strategies for reducing microbial / viral loads in oral fluid, disinfectants as adjunct to PPE, design of dental operatory including waiting areas/ clinic / dental hospital, air purification technology to help manage aerosol created during dental procedures. There is need for adopting more

digital dentistry, use of patient management systems.

During the period of COVID-19 pandemic, there is a need for thorough pre-visit screening and well-controlled patient visits to clinic.³ Dental lasers have been shown to reduce the volume of aerosolized particles released during a dental procedure due to the reduced volume of water sprayed into the patient's mouth during use. These lower volumes of water reduce the size of the aerosol cloud, likely making procedures safer for clinicians. Alternatively, high-volume suction apparatus must be used when performing aerosol generating procedures.

In addition to ensuring proper decontamination, sufficient time should be allowed for enough air circulation / changes to occur and so to remove potentially infectious particles. The time for which the area should remain unused may have to be longer in case the patient has coughed and sneezed in the clinical area as well as longer duration dental procedures generating aerosol have been done for the patient. All surfaces will need to be cleaned. Staff will have to wear heavy-duty PPE. Waiting rooms will need to be rearranged and appointments staggered to allow for social distancing, according to measures set by local dental practice regulating body. Obviously, all these will add to increased overhead costs and more environmental concerns.

Time has come for dentistry to show it is different, for dental healthcare professionals to accept that there is so much more that they can do, and perhaps the things that have surfaced through this outbreak, and all the rest that is shaking up the entire globe, can truly allow all of us to reinvent and renovate the dental healthcare system to become one that is just, all-encompassing, and truly serving the best interests of our every patients. From now onward, we will always be living in an increasingly complex world and most scientists have agreed that they are living in one of the greatest times of change. This pace of change is still increasing. However, one thing for sure that could help us is "innovation". Innovation is not only the key to endless economic growth but the key to solving problem, however, it is necessary that we focus on innovation without exploitation. New innovations enable growth and prosperity in the same way - making things better and more efficient. But, none will innovate if they are content - there needs to be an urge to find a better way to do things. Corporations and corporate leaders are the key actors today, with greater possibility to influence the future - Far more than the governments. In fact, it may possibly be the best time, especially now, with the greatest focus and attention, with every one looking for new and fresh ideas, a time of change, when everyone is looking to transform and innovate and get it right

That time has come now.

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