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Editorial

Impacts of COVID-19 Outbreak on Dentistry Dimensions

As the coronavirus disease-2019 (COVID-19) pandemic emerged, almost every aspect of our lives was affected, such as health, relations, economics, and professional aspects.[1] Among these, dentistry is not an exception. The disease outbreak has impacted four fields of the dentistry profession including services, education, research, and industry. Although some of these issues would vanish or diminish at the end of the pandemic, many of them would last and change the profession.

In the field of dentistry services, due to health and sanitation issues for both patients and dentists, many cautions should be considered. Since the most common ways of SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) transmission is through airborne particles and contaminated surfaces,[2] and due to exposure of both patients and dentists to each other's oral cavity-derived particles, using protective devices has become more important. Besides, many common procedures and devices during operations such as low- or high-speed headpieces and air polishers make aerosols that may bear virus-contained particles. It is shown that within 60 cm around the patient's head, on the right arm of the dentist, and his mask is the most contaminated sites by aerosols.[3] Thus, using face masks and eye protection is even more important to inhibit viral transmission. Moreover, pre-procedure usage of antimicrobial agents and mouth rinses, for instance those containing 0.2% povidone-iodine or 1% hydrogen peroxide, can help to reduce the viral load of the oral cavity and respiratory tracts.[4] Implementation of high-speed saliva ejectors is another suggested way to reduce the exposure of dentists to probable virus-contained particles. Similar to any other place, applying environmental disinfectants namely ozone gas, UV radiation, and 60-85%-contained alcohol disinfectants is useful. Using air depuration systems and enough air change between each dental procedure is also important to reduce the biohazard load of the environment.[5]

Just like every other discipline, the pandemic affected dentistry education as well. Lockdowns of pre-clinics and clinics, absence of patients, virtual education, changes in academic programs, and financial shortfall of faculties are examples of pandemic-derived problems. Upon the lockdown of dentistry faculties, as small hospitals that provide oral health care, many people would be deprived of a wide range of these services, especially for low-income people. Faculties should try to maintain their high-quality education and provide oral healthcare services during these financial and health instabilities.[6] Dental researches, same as other fields of research, are facing fewer grants due to more focus on COVID-19-related researches. In the case of the dental industry, the situation is the same as other industries: coping with recession, reverse globalization, new ways of contracting with consumers, and finding new markets.[7]

New considerations, protocols, and mechanisms would be implemented in the dentistry profession because of the experience of the COVID-19 pandemic. Triage of patients before the presence in clinics, specifically by e-oral healthcare would become more important and lead to teledentistry. Using the experiences of e-Oral Health Network can be helpful in this way.[6] Implementation of new devices in dental clinics that produce fewer aerosols, or negative pressure rooms for procedures that make high loads of aerosols will be considered. Redesigning clinics and pre-clinics to protect students, patients, and other staff is another important matter. We expect that the key features of post-pandemic dentistry are reduction of infection risk, resumption of dental procedures, implementation of new approaches and technologies, and changes in providing oral health services.[7] Noteworthy, dentists are well-educated health personnel in protecting themselves from infectious diseases. This experience could be used both in dental care and pandemic control in the future.

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