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Editorial

The COVID-19 Pandemic Driven Challenges for Dental Practice and Dental Education

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The year 2020 has proved havoc for all sectors of human life especially the health sector due to the COVID-19 pandemic. So far 1.5 million peoples have died, whereas 64,603,428 peoples have been infected with the virus so far. With the second wave of the pandemic, the daily death toll across the globe has reached 12,161 with daily positive cases of 628,592 [1]. To face this challenge, the countries are following the WHO guidelines that include lockdown of cities, facilities, educational institutions as well as businesses. The medical and dental professionals are at the forefront to face the invisible enemy while treating the suspected and COVID-19 positive patients. According to the Amnesty International report published in September 2020, more than 7000 health workers have lost their lives due to the COVID-19 infection [2]. Out of this huge no., 2500 have been reported from the USA only [3]. It has been reported that both symptomatic and asymptomatic patients are the main source of COVID-19 transmission among the population as well as in hospitals [4]. Current evidence suggests that transmission of the pathogen takes place through respiratory droplets as well as contacting the COVID-19 positive patients. As dentists deal with the oral cavity, they are most vulnerable because like other respiratory diseases, COVID-19 infections mainly spread through the respiratory droplet nuclei of > 5 - 10 μm in diameter, coming from the infected patient's mouth during coughing and sneezing from a distance of less than 1 meter [5]. Unfortunately, in the case of dental treatment, it is impossible to maintain social distaining guidelines. In dental clinics, the distance between patients and dentists is just 1 - 3 feet. Hence, the dentists are highly vulnerable to be infected while treating a COVID-19 positive patient or become a source of infection for healthy patients being an asymptomatic carrier of the infection. Consequently, the dental practice has been badly affected across the world in form of closures of dental hospitals or limiting the treatment to emergency cases. To cope with this situation the American Dental Association has established taskforce taskforce that guides the dental communitys to practice dentistry during the pandemic. The ADA has published guidelines including Return to Work Interim Guidance Toolkit and COVID-19 Hazard Assessment. The guidelines along with recommendations protect the dentists, patients, and auxiliary staff before, during, and after the appointment [6]. Almost all countries have established guidelines that guide the patients, staff, and dentists to keep safe in the waiting room as well as in the dental clinics before and after treatment. The public health and community departments must ensure such guidelines reach to all stakeholders and are followed in letter and spirit for a smooth, safe, and profitable dental practice both in public and private sectors. The dental schools are already following these guidelines to keep their students, faculty, staff, and patients safe and healthy. Since the start of the pandemic in February, the dental schools have successfully started online classes to deliver didactic courses using LMS, ZOOM, MS Teams, and other platforms. But in some countries, the quality of laboratory and clinical courses have been affected due to implementation of social distancing guidelines, limited faculty, facilities, phantom heads, dental chairs and other resources. There is a need that laboratory and clinical simulation-based lectures be embedded in the clinical and lab-based courses so that students may be taught using online platform virtual reality techniques to compensate for the clinical and lab contact hours compromised due to scheduling of students while complying with social distancing and minimum exposure and contact guidelines. Development of such simulation tools, software, and video will add value to the field of dentistry wherein students will be able to learn in accordance with their own pace and time with minimal supervision.

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