

## From Disruption to Innovation: Adapting to the Uncertainty and Navigating the Ongoing Challenges of the Impact of COVID-19 on Dentistry and Dental Research

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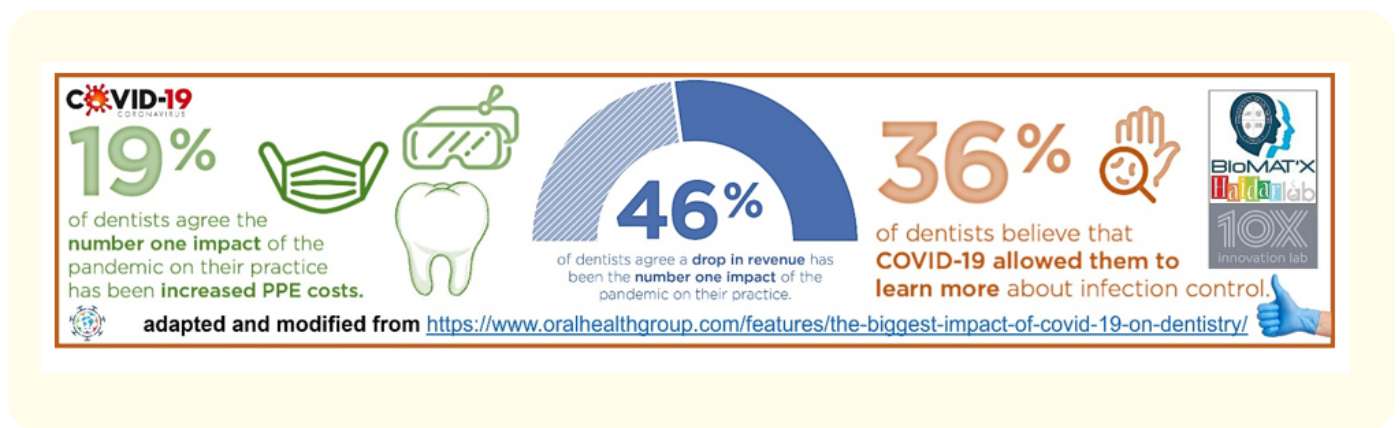
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### Graphical Abstract



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**Precis**

The COVID-19 pandemic has had a profound impact on virtually every aspect of human life, and dentistry is no exception. Indeed, as healthcare professionals, dentists and other dental professionals have had to adapt quickly to the new reality of providing care during a global pandemic. The impact of the pandemic on dentistry has been wide-ranging, affecting not only the provision of care but also the research that informs it, manifested in recent dentistry-related literature. This editorial explores the impact of COVID-19 on the provision of dental care and dentistry-related literature, highlighting the challenges faced by the dental community and the innovative solutions that have been developed. Despite the ongoing and after-math challenges posed by the pandemic, the dental community has demonstrated resilience and adaptability in the face of uncertainty.

One of the most visible impacts of COVID-19 on dentistry has been the implementation of new safety protocols to prevent the spread of the virus. Dental practices have had to invest in personal protective equipment (PPE) and reconfigure their offices to allow for social distancing [1]. Patients have had to adapt to new protocols as well, such as pre-screening questionnaires and temperature checks upon arrival. The implementation of these protocols has had a significant impact on the cost of care and the patient experience. The interruption of routine dental care has also been a significant impact of COVID-19 on dentistry [2]. Many dental practices were closed for several months during the initial wave of the pandemic, and even after reopening, they were limited in the types of services they could offer. This has led to a backlog of patients seeking routine care and an increased demand for emergency services. Furthermore, the impact of COVID-19 on dentistry-related literature has been significant as well. The pandemic has prompted a surge of research on the transmission and prevention of COVID-19 in dental settings. This has resulted in a wealth of new literature on topics such as aerosol generation, PPE effectiveness, and infection control protocols [3]. At the same time, the pandemic has also had an impact on the conduct of dental research. Many dental research institutions were forced to pause their studies or switch to remote work, leading to delays and disruptions in ongoing research projects. The pandemic has also had financial implications for many dental research institutions, as funding sources have become more difficult to obtain [4].

Despite these challenges, the dental community has responded to the pandemic with resilience and adaptability. Dental practices have implemented new safety protocols and have found innovative ways to provide care remotely. The research, development and innovation community has pivoted to address the urgent needs of the moment, producing valuable new awareness into the transmission and prevention of COVID-19 in our clinics.

Certainly, the impact of the COVID-19 pandemic on dentistry and dentistry-related literature will continue to be felt long after the pandemic has subsided. One of the most significant changes is likely to be the continued adoption of tele-dentistry and other virtual care options. This technology has allowed dental professionals to connect with patients remotely, reducing the need for in-person visits and minimizing the risk of transmission of the virus. In addition, the pandemic has highlighted the importance of infection control and prevention measures in dental settings. Dental professionals have implemented more rigorous cleaning and disinfection protocols to prevent the spread of the virus, and these measures are likely to remain in place even after the pandemic has subsided. Consequently, the pandemic has also had an impact on dentistry-related literature, with many studies focusing on the impact of COVID-19 on dental care. This accruing research has highlighted the need for more robust infection control measures and the importance of addressing the mental health needs of dental professionals. As the dental community continues to adapt to the challenges posed by the pandemic, it is likely that new innovations and best practices will emerge. Collaboration and the sharing of knowledge and resources will be essential in navigating the ongoing impact of the pandemic on dentistry and dentistry-related literature. One additional point to consider is the impact of COVID-19 on the mental health of dental professionals. The pandemic has placed significant stress on healthcare workers, including dental professionals, who are at increased risk of exposure to the virus. In addition, the disruption of routine care and the uncertainty surrounding the pandemic have added to the psychological burden. Studies have shown high levels of anxiety, depression, and burnout among dental professionals during the pandemic [5]. Addressing the mental health needs of dental professionals is critical to ensuring their well-being

and the quality of care they provide. Dental organizations and institutions can support their staff by providing access to mental health resources and promoting a culture of well-being and self-care. Additionally, addressing the root causes of stress, such as workload and financial concerns, can help alleviate the burden on dental professionals and support their resilience during such challenging times.

In conclusion, the COVID-19 pandemic has had a significant impact on dentistry and dentistry-related literature, with far-reaching effects on the provision of care, research, mental health, and the well-being of dental professionals. While the pandemic has presented many challenges, it has also spurred innovation and adaptation within the dental community, which will continue to shape the future of dental care for years to come.

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