
Post-COVID Reflections and Practice: A Dental Student's Perspective

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Abstract

The COVID-19 pandemic altered every aspect of human life. This article offers a compelling insight into the experiences and observations of a dental student navigating the field amidst the global pandemic. It also explores the impact of COVID-19 on dental education, patient care, and professional development. The challenges faced, lessons learned, and adaptations made during the crisis were reflected upon. This article highlights the importance of resilience, adaptability, and innovative approaches to dental practice in the post-pandemic world. It provides a unique perspective that encapsulates the evolving landscape of dentistry and underscores the need for continued adaptation and growth in the face of unprecedented circumstances.

Introduction

Beginning in early 2020, the COVID-19 pandemic, brought on by the entirely novel coronavirus SARS-CoV-2, became a major global health emergency. Every element of our everyday lives was interrupted by the pandemic, including dentistry and healthcare.¹ Students and health professionals alike faced difficult obstacles and had to quickly adjust to the new standard. The goal of this essay is to examine post-COVID reflections and practices from the viewpoint of a dental student, including the difficulties encountered, the lessons learned, and

the changing environment of dental education and clinical practice.

Pre-COVID Era in Dental Education, Clinical Training, and Infection Control Practices

Prior to the COVID-19 epidemic, traditional classroom teaching methods were the mainstay of dental education. In physical classrooms, dental students got didactic training on a variety of dental-related topics during lectures, and seminars. These lectures gave us the background information needed to comprehend dental concepts, theories, and principles. Face-to-face

interaction with professors and students allowed for instant doubt clarification and promoted active conversation. Traditional education, however, had to come to an end because of the lockdown and social isolation tactics.

Prior to COVID, dental students would invest a lot of time in clinical settings to gain some practical experience while being watched over by their lecturers and seasoned dental professionals. Dental procedures such as extractions, fillings, scaling, and polishing were performed by dental students under supervision. Aside from managing dental fear, another skill we developed was how to care for patients with empathy and compassion.

Before the pandemic, infection control procedures were already a crucial component of dental education. Dental students received instruction in appropriate infection control practices, including hand washing, the use of personal protective equipment (PPE), sterilization and disinfection techniques, and the management of biohazardous objects. By preventing the spread of infectious diseases, infection control procedures were designed to safeguard both patients and dental staff.²

Challenges faced by dental students

Prior to the COVID-19 epidemic, dental students had to contend with a number of difficulties despite the benefits of traditional dentistry education. The difficulty in bridging the gap between theoretical knowledge and practical application occasionally occurred among these

difficulties, which also included limited access to specific patient scenarios, differences in clinical experiences among students, high patient volumes resulting in time restrictions.^{3,4} Additionally, dental students' general well-being was challenged by the strain of meeting academic requirements, handling a large workload, and juggling personal obligations. Stress levels were frequently increased by the competitive nature of dentistry education and the pressure to perform well in school.⁵ These difficulties compelled dental educators to review and enhance dental curricula frequently in an effort to give dental students a more thorough and well-rounded educational experience.

In general, the pre-COVID dental education landscape set the stage for dental students' clinical competence and understanding.

The COVID-19 pandemic brought about a lot of changes and required adjustments in dental education, clinical practice, and infection control strategies.

Impact of COVID-19 on dental education

The traditional dental education environment underwent a swift change following the start of the COVID-19 pandemic. The issue of switching from traditional classroom settings to online learning environments was experienced by dental schools all around the world. Dental students faced several challenges during this transition since we were used to practical instruction and close contact with lecturers and classmates.

There were benefits and drawbacks of online schooling. Learning management systems and video conferencing tools were frequently used in the virtual lectures, webinars, and conversations that dental students had to get used to. Online learning environments lacked the immersive setting of face-to-face training, even while they provided for flexible scheduling and the option to review recorded sessions. We had trouble staying on track, participating actively, and communicating effectively with the instructors.^{3,4}

The pandemic's disruption of clinical training was among its most important effects on dental education. Due to the extended lockdown, constrained access to clinics, and the need to reduce the risk of disease transmission, dental students were unable to participate in routine patient treatment, and many practical lessons had to be canceled. Students' opportunities for practical clinical experience were significantly reduced as a result. Dental schools used a variety of measures to make up for the loss of clinical instruction.

To allow students' practice with simulated patient interactions and treatment planning, case-based learning and virtual simulations were incorporated into the curriculum. Some institutions have implemented rescheduled clinical rotations or compressed timetables to make up for lost clinical hours. However, these substitutes fell short of adequately replicating

the extensive clinical experience that students received in the pre-pandemic setting.

Dental students had a wide range of psychological problems as a result of the COVID-19 pandemic. Our mental health suffered as a result of the uncertainties of the virus, disruptions in the classroom, and worries for our own safety and health. During this time, a lot of students dealt with increased anxiety, stress, and exhaustion. The psychological toll was increased by social isolation and decreased social contact. A collaborative and participatory learning environment is generally fostered in dental education, thus the abrupt switch to remote learning caused students to feel cut off from their peers and professors. Feelings of uncertainty and self-doubt were also exacerbated in clinical settings by the lack of direct supervision and mentor-ship.

Dental colleges and professional organizations created a number of coping strategies and support systems for dental students after realizing the pandemic's psychological effects. These programs sought to support students' emotional health and give them tools for coping with stress and anxiety. Students had access to online support groups, counseling programs, and mental health resources. Faculty members and mentors were extremely important in offering direction, assurance, and mentoring remotely.

Online forums were used to promote peer-to-peer connections, enabling students to talk about their experiences, give and receive advice, and

support one another emotionally. Furthermore, self-care and stress-reduction strategies were stressed in dental schools. To reduce stress and maintain their general well-being, students were urged to find hobbies, practice mindfulness, maintain a healthy work-life balance, and get exercise.

Reflections on the new normal

A dramatic change in the dental profession's attitude to infection management has been brought about by the COVID-19 epidemic. Dental students have seen an increased focus on infection control procedures to guarantee the security of both patients and healthcare professionals. Dental students today are more aware of the value of thorough hand hygiene, correct use of PPE, and adhering to exacting cleaning and sanitizing protocols. Comprehensive infection control training has been incorporated into our curriculum by dental educational institutions, ensuring that we are knowledgeable about the most recent standards and procedures. We learn about the methods by which contagious diseases are spread, how to put on and take off PPE correctly, how to sterilize objects, and how to apply high level disinfectants. Dental students now have a stronger appreciation for the value of keeping a clean, sterile clinical setting to avoid cross-contamination.⁷⁻¹⁰

Teledentistry has become a useful technique in dental practice, particularly when there are few opportunities for face-to-face encounters. As

dental students, we have learned about the cutting-edge idea of remote patient consultations, which has allowed us to provide patients preliminary diagnoses, counsel, and suggestions without having them come in for physical examinations. We can analyze patients' oral health issues, connect with them via video chats, and provide advice on pain control, oral hygiene practices, and preventive measures via teledentistry. This technology has shown to be especially helpful for triaging patients, figuring out how urgent their dental requirements are, and giving suitable referrals. With an understanding of its limits and an appreciation of its potential to improve access to oral healthcare, particularly for marginalized communities, we can adjust to this new approach to patient care.^{11,12}

To reduce the danger of infection transmission, treatment planning and clinical protocols have had to be modified in the post-COVID age. We have been taught as dental students how to evaluate the risk of procedures based on the possibility for aerosol generation and the existence of COVID-19 symptoms or positive instances. The risk assessment has altered treatment choices, favoring conservative strategies and giving priority to urgent or necessary operations. We have also seen changes made to clinical workflows to reduce the production of aerosols. Extraoral suction units, high-volume suction devices, and rubber dams are now more frequently used. Additionally, the risk of cross-contamination has been decreased through the use of improved instrument processing practices,

such as the use of single-use items whenever practical.

The pandemic has quickened the pace of technological adoption in dentistry training and practice. Different technology developments have been embraced by dental students to improve patient care and their educational experience. In order to supplement traditional classroom-based teaching, we have used virtual platforms, internet resources, and e-learning modules.¹³

To increase our expertise, we have taken part in online interactive courses, webinars, and virtual lectures. Virtual reality technologies and simulation software have made it possible for us to hone our clinical abilities in a controlled setting before applying them to actual patients.

To improve treatment outcomes and streamline workflows, digital dentistry equipment like intraoral scanners, CAD/CAM systems, and 3D printers have also been implemented.¹³ By eliminating the need for traditional impressions and permitting same-day crown placements, these technologies have permitted more precise and effective restorative operations.

Furthermore, dental students have improved patient connection and collaboration with other healthcare experts by utilizing teledentistry platforms, electronic health records, and digital communication channels. These technological advancements have enhanced interdisciplinary consultations, case discussions, and treatment coordination. We have adapted to the new

normal by embracing technology, and we have also acquired useful abilities that will continue to influence the future.

Evolving Dental Curricula in the Post-COVID Era

The epidemic brought to light the value of teamwork and collaboration among healthcare professionals. Dental students understood the importance of collaborating closely with other medical specialists to provide thorough patient care and control the spread of infectious diseases. Dental curricula are being revised in the post-COVID era to include inter-professional education (IPE) experiences. Dental education now includes mandatory chances for collaborative learning with students studying medicine, nursing, and other allied health fields. Effective communication, respect for one another, and collective decision-making are encouraged by inter-professional simulation exercises and case discussions. Dental students increasingly understand how critical it is to forge solid interdisciplinary connections. They understand that working together with experts from other healthcare specialties strengthens their capacity to deliver patient-centered care and boosts general healthcare results.

A basic component of dental practice has always been infection control protocols, but the COVID-19 epidemic has called for a more stringent approach to sterilization and disinfection. In order to achieve the highest levels of infection control, dental students have received intensive training on modern methods.

The need to sterilize tools and equipment has increased, with an emphasis on using autoclaves and chemical indicators to check the sterilization process' efficacy. Surface sanitation has also been improved, using the right disinfectants and adhering to the right contact times. Single-use disposable goods have been used whenever possible in the post-COVID period to lower the possibility of cross-contamination. This includes accessories like dental bibs, chair covers, and saliva ejectors [2,7]. In the dental setting, effective communication and patient education are essential for infection management. Dental students have learned the value of open and honest communication with patients, especially when it comes to the more stringent infection control procedures implemented.¹⁴

The COVID-19 pandemic highlighted how susceptible the healthcare system is to public health emergencies, including dentistry. Dental students understood the value of being prepared and the necessity of taking preventive actions to lessen the effects of future disasters. We gained knowledge about the value of infection control procedures.^{15,16} The importance of participating in emergency response training, remaining current on emerging infectious illnesses, and actively pursuing public health programs was recognized by dental students. Dental students were urged by the pandemic to focus preparedness and support future pandemic response initiatives.

After COVID, dental students were encouraged to pursue lifetime learning and professional development. The pandemic drove students to adopt new technology, make use of online learning environments, and find creative ways to advance their knowledge and skills. Keeping up with the most recent research, developments, and clinical procedures has become crucial as the dental industry develops. Dental students learned the importance of taking continuing education units, attending webinars, and actively looking for mentor-ship opportunities. The pandemic hastened the transition to digital dentistry, and students are aware of the importance of learning new skills. We understood that lifelong learning was crucial for our professional development as well as for providing our patients with the finest treatment possible.

Conclusion

The COVID-19 pandemic had a huge influence on the dental profession and presented numerous difficulties for dental students. This essay examined the reflections and practices of dental students in the post-COVID period, illuminating the necessary adaptations and changes that have occurred. Online learning systems have taken the place of traditional classroom instruction, requiring students to get used to virtual lectures and remote interactions. The disruption to clinical training reduced patient encounters and hands-on learning opportunities. With the help of colleagues, teachers, and professional associations, dental students overcame these

obstacles, demonstrating resilience in the process. Following the COVID outbreak, infection control procedures have become crucial, with PPE improving in protection and aerosol management measures being put in place to reduce the transmission of the virus. Virtual pre-screening, revised appointment times, and patient education on safety procedures have all transformed how doctors and patients communicate with one another. Dental students have gained knowledge from these experiences, improved their resilience and flexibility, sharpened their networking and teamwork abilities, and realized the value of being ready for future public health catastrophes.

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