



## Will the DDS class of 2021 be practice ready?

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In early January 2020, a cluster of pneumonia cases was reported in Wuhan, China, caused by a new respiratory virus that the World Health Organization named the severe acute respiratory coronavirus 2. On January 21, 2020, the first case was documented in Washington state. By February 15, 2020, the respiratory infection caused by severe acute respiratory coronavirus 2, named COVID-19, was spreading rapidly. Dental schools began to prepare for what could be a serious pandemic that could interfere with dental education. Cases were surging on both coasts, triggered by disease transmitted from both Europe and Asia, and eventual community spread. By the end of February, many schools were preparing to introduce online virtual education for all students, but dental education requires substantial in-person simulation and live patient care.

On March 13, 2020, President Donald J. Trump declared the COVID-19 pandemic a national emergency, forcing many schools to eliminate all in-person teaching and close their dental care facilities owing to local and state emergency stay-at-home orders. The class of 2020 was immediately put into special constraints to complete their education in a timely fashion for a spring graduation.<sup>1</sup>

The class of 2021 also experienced disruptions in their education that has persisted for the past year. Today, as we graduate the class of 2021, more than a year into the pandemic and initial closures, we ask

- how has dental education changed?
- are our current students receiving the education they deserve and need to be competent new practitioners?

The class of 2021 has faced unprecedented challenges in receiving their dental education. In addition to enhanced personal protective equipment required for dental care in the pandemic setting, other requirements in a dental school clinic include social distancing, traffic control and screening of patients, enforcement of mask mandates, COVID testing before aerosol-generating procedures, and enhanced infection control protocols for the dental operator.<sup>2</sup> All of this reduces productivity. For many schools, clinical operations were interrupted for several months. Despite the increased costs of delivery of care and reduced productivity, dental schools are educating dentists. We have learned to teach using virtual technologies and to design and implement new competency assessments. We have been able to improve our oversight of student learning and assessment, make the individual procedures that students are performing more meaningful, and, in many cases, improve the learning experience. The pandemic has presented an unprecedented necessity and opportunity for change.

The move to online learning has enabled dental schools and programs throughout the United States to offer high-quality continuing education courses to their students and alumni, as well as dentists from around the world. Many schools and programs have also collaborated to share their resources, with students benefiting by learning from faculty from other schools. The value of this methodology for lifelong learning will shape the future. It has also enabled schools to better calibrate their faculty members to teach better. Our online library of courses will make available a significant amount of content for asynchronous learning in the future, as well as reconsider the meaning of the classroom. When teaching a generation of learners who are accustomed to accessing information online just in time, these new active learning and online education methods may not only align with their preferred ways of learning and accessing information but also be more cost effective.

Unfortunately, remote learning does come with a cost: a loss of social, face-to-face interaction. A good portion of dental education involves learning how to interact effectively with people—colleagues, other health professionals, and patients. The stress of being separated from educators and

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friends, lack of separation between school and home, lack of regular informal personal interactions with classmates that lead to lifelong camaraderie, and uncertainty, places students and faculty under an inordinate amount of pressure and has significant effect on the mental health of all. This has added to the personal stresses our students, faculty, and staff members have experienced outside of work and school and the grief for all that has been lost. Our demand for counseling support for students, faculty, and staff members has risen, and the universities have responded. This is expected to be an ongoing challenge.

In April 2020, the Commission on Dental Accreditation (CODA) issued guidance regarding temporary flexibility in accreditation standards to address the interruption of education resulting from COVID-19 for the Class of 2020.<sup>1</sup> This temporary flexibility allowed for alternative assessment methods and modifications or reductions in curriculum content or requirements and program length or program component length. Programs were reminded that they must demonstrate compliance with all CODA standards, including providing adequate patient experiences before assessment of competence, and, in those instances in which a student, resident, or fellow has not satisfied the program's expectations, additional time and experience in the program may be necessary. These temporary flexibility guidelines have been extended to the class of 2021.<sup>3</sup>

All schools must ensure that graduates are minimally competent according to the CODA standards: entry level competence (ELC) for the practice of general dentistry. Schools are committed to ensuring their graduates are minimally competent, even as this may mean extending time to graduation. For all graduates, what may be missing are those educational experiences that enhance their knowledge and skills and increase their confidence: community-based clinical and service learning, electives in advanced dental specialty areas, and global service-learning experiences. Furthermore, many schools have not only experienced a disruption in clinical activities, but also a reduction in patient pools. Some of our patients have not returned owing to financial issues, illness, and fears about their risks of being exposed to COVID-19.

Schools are committed to ensuring their graduates are competent when they award the degree; however, this comes with additional costs. Many in the class of 2021 will need extended time to demonstrate competency. This poses yet another challenge to the student who may now need to worry about living expenses not covered by financial aid, lost income due to delay to licensure and practice, as well as potential delays to start graduate programs and residencies. However, no additional tuition will be charged to them. These costs will be absorbed by the schools, to add to our financial stresses. The financial impact to schools since the beginning of the pandemic includes increased costs of personal protective equipment, staffing for extended hours, environmental controls to mitigate aerosols, equipment to facilitate at-home practice of preclinical skills, and sponsored research under no-cost extensions. This, coupled with significant reductions to clinical revenues during clinic closures and slow recovery of patient volumes, has been a major threat to many dental schools and programs.

All schools are committed to ensuring ELC for the practice of general dentistry. As before COVID, the faculty will assess overall competency for each student and answer this question: Does this student demonstrate ELC for the practice of general dentistry? When the answer is yes, they will graduate.

Is ELC the same as before? Some aspects of ELC are more readily measured (knowledge, technical skills), while others are more difficult (critical thinking, ethics, professionalism, inter-professional practice). What is the effect of the lost interactions between faculty and students and students and students on their deep understanding of the meaning and contexts of that knowledge and its application? It will be some time before we know the lost benefits of these personal interactions on the maturing professional and the way they synthesize information. Development of technical clinical skills has been hampered by the lost access to clinics for several months, and schools have modified schedules to make up for lost time to achieve ELC and on-time graduation. But what about incubation time, that time for reflection and meta-cognition? ELC is being achieved by methods put into place since March 2020. However, the impact on the graduate of the loss of professional interaction and time for feedback and reflection is yet to be determined. We are optimistic about their future and that they have the tools to succeed and continue to learn and grow as professionals.

## CONCLUSIONS

We all recognize that we needed to assure the public and our students that the class of 2021 will receive their degrees competent and confident in dentistry. We believe they will arrive with a grit and resilience that will serve them throughout their career—making them stronger, making them more sensitive to the personal stresses of others, and making them lifelong learners. And they will graduate as competent dentists. ■

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**1.** American Dental Association. Commission on Dental Accreditation, Additional post-CODA meeting guidance on interruption of education related to COVID-19 for the class of April 14, 2020. Available at: [https://www.ada.org/~media/CODA/Files/COVID19\\_Guidance\\_InterruptionofEducation\\_Class2020.pdf?la=en](https://www.ada.org/~media/CODA/Files/COVID19_Guidance_InterruptionofEducation_Class2020.pdf?la=en). Accessed March 7, 2021.

**2.** Centers for Disease Control and Prevention. COVID-19: guidance for dental settings—interim infection prevention and control guidance for dental settings during the coronavirus disease 2019 (COVID-19) pandemic. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/dental-settings.html>. Accessed March 7, 2021.

**3.** ADA Commission on Dental Accreditation. Temporary flexibility in accreditation standards for the class of 2021. Available at: <https://www.ada.org/en/coda/accreditation/accreditation-news/covid-19-updates>. Accessed March 7, 2021.



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