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Resident Education in the Time of a Global Pandemic: Development of the Collaborative OMS Virtual Interinstitutional Didactic (COVID) Program

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Disparity in didactic education among oral and maxillofacial surgery (OMS) training programs has driven a national conversation regarding the need for a standardized OMS curriculum, which has been recently amplified by the drastic interruption of OMS training programs during the coronavirus disease 2019

(COVID-19) pandemic. In the present report, we have described the Collaborative OMS Virtual Interinstitutional Didactic (COVID) Program, a multi-institutional educational curriculum developed in response to the pandemic and aimed toward OMS resident education.

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The Current State of OMS Training

OMS training primarily follows the Halstedian model of apprenticeship and graded clinical responsibility. In this schema, a standardized didactic curriculum is essential for trainees to obtain core knowledge of the principles and management in OMS. In recent years, various pressures, including increasing clinical demands and work hour limitations, have threatened the didactic schedules of many training programs.

Differences among OMS training programs related to institutional and regional variability in scope and method of practice are additional barriers to standardized surgical education across the United States and internationally. These disparities have spurred the development of initiatives at the national organizational level intended to standardize resident education. Competency-based surgical learning through the development of educational milestones and entrustable professional activities paralleling those developed by the Accreditation Council for Graduate Medical Education has been advocated. For more than a decade, there has been a push for the development of an OMS national curriculum or shared learning management system (LMS). The addition of OMS curricula to the Surgical Council on Residency Education LMS developed for general surgery is currently in development, with an anticipated rollout in July 2020.

The Challenges of the COVID-19 Pandemic

The March 2020 outbreak of COVID-19 in the United States resulted in a drastic reduction in the clinical activities of academic OMS practices across the United States. Virtually overnight, trainee involvement in clinical patient care was reduced to a minimum, with the risk of potential COVID-19 transmission to team members and the need to conserve personal protective equipment outweighing the benefits of preserving patient-based educational activities in teaching hospitals. These changes posed immediate and significant strategic and logistical challenges for resident education.

Individual programs rapidly implemented a variety of measures intended to mitigate the interruption to resident education, including a rapid increase of didactic sessions. A number of national organizations and healthcare companies offered webinars geared toward resident trainees that residency programs used to augment their individual curricula. Despite these efforts, a longitudinal, organized didactic series with universal availability and applicability was unavailable. To address this need, a group of oral and maxillofacial surgical ed-

ucators from across the United States came together to develop a combined didactic curriculum, an endeavor termed the Collaborative OMS Virtual Interinstitutional Didactic (COVID) Program, in recognition of the pandemic as the catalyst to the program's creation.

Development of the COVID Program

The COVID Program was developed by a working group of 11 academic surgeons representing programs across the United States (University of Michigan, University of North Carolina, Medical College of Wisconsin, Case Western Reserve University, Emory University, Medical University of South Carolina, University of Florida Health Jacksonville, University of Maryland, University of Texas Health Science Center at Houston, and University of Texas Southwestern Medical Center/John Peter Smith Health Network).¹

The main objective of the COVID Program is the prioritization of resident education during and after the pandemic. The founding collaborators strove to develop a standard OMS lecture series using an internet-based platform that would encompass the breadth of the specialty. The intention of the COVID Program is to complement and enrich the didactic schedule of each OMS program and to potentially address unique curriculum deficits at individual institutions. We leveraged faculty expertise from the participating programs to offer lectures by esteemed educators from across the United States.

The COVID Program is a 20-week e-learning course with 3 weekly sessions, organized by blocks covering various domains in OMS, with lectures by junior and senior faculty alike. Live sessions consist of a 45-minute lecture, followed by a discussion between faculty experts on the topic and questions and answers with attendees. Individual OMS programs will determine the degree to which the COVID Program is relied on for resident training and the attendance requirements of the trainees.

The COVID Program has the potential to be of greater benefit to OMS residents than simply offering educationally remunerative content, including accessing lecturing faculty from across the United States, networking with residents and faculty from other institutions, and providing an opportunity for human and professional connections during and after the pandemic. Additional potential benefits for faculty include sharing of the responsibility for didactic curriculum creation, more time for other pursuits such as scholarly activity, and networking and speaking opportunities.

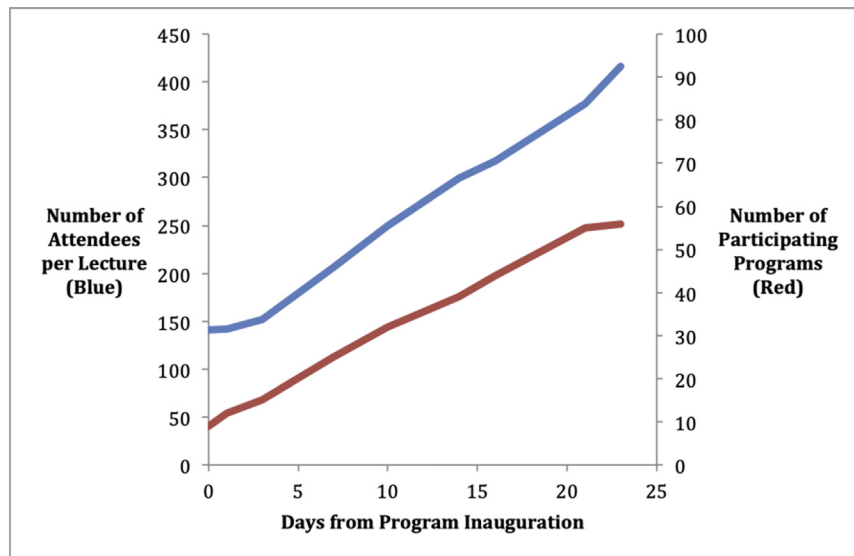


FIGURE 1. Early growth of the Collaborative Oral and Maxillofacial Surgery Virtual Interinstitutional Didactic (COVID) Program.

Moe et al. Collaborative OMS Virtual Interinstitutional Didactic Program. *J Oral Maxillofac Surg* 2020.

Process Implementation

The COVID Program has been met with overwhelming enthusiasm from faculty and trainees across the United States and internationally. A staged implementation of the COVID Program was introduced in which the lecture frequency and session capacity were broadened to meet the increasing demand. The early success of the COVID Program has been evident by the continued weekly increases in the number of attendees per session and the number of participating programs (Fig 1), with contributing institutions from Canada, South Africa, and the United Kingdom. A high demand for lectureship positions by faculty has led to lecture spots being filled within 3 weeks of the program's inauguration.

The early traction of the COVID Program is attributable to a combination of factors. Its founding collaborators were able to rapidly develop a high-quality didactic program by implementing cross-institutional solutions to optimize operational efficiency. Readily available virtual platforms were quickly adopted to support the lecture sessions, which allowed for easy access by attendees across the United States and the world. An exceptional schedule was made possible by the generosity and enthusiasm of surgical educators willing to donate freely of their time and expertise. Finally, the rapid dispersal of information through online platforms and social media allowed for high visibility of the program among the OMS and dental communities.

Process Review

The optimization of the COVID Program remains an iterative process in a time of rapidly changing circumstances. Representatives of the founding collaborative meet weekly to review the program. Ensuring the accessibility of the COVID Program to residents and faculty across the United States with shifting clinical duties is a priority and relies on fluidity in program scheduling. Feedback is collected from the resident and faculty participants on an interval basis through online questionnaires intended to ensure the program stays true to its initial objectives and for quality improvement measures.

In conclusion, the long-lasting effects of the COVID-19 pandemic on OMS residency training remain unclear. Although the COVID Program alone might not fully address the multifaceted interruption in surgical training, we believe that the program has already significantly augmented the didactic experience of residents across the United States and will continue to do so, especially as it reaches greater numbers of residents and practitioners. Although it is unclear whether the COVID Program will persist as a repeating series or be integrated into a national curriculum, we are confident that it has the potential to fundamentally transform and improve the future of OMS residency training programs.

Reference

1. Collaborative OMFS Virtual Interinstitutional Didactic (COVID) Program. Available at: <https://media.dent.umich.edu/sites/omfscovid/>. Accessed May 5, 2020