

Dental student research mentorship in the era of COVID-19

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1 | PROBLEM

In response to coronavirus disease 2019 (COVID-19), the Medical University of South Carolina (MUSC) College of Dental Medicine has modified clinical, research, and educational operations. This included adapting the predoctoral dental research course that consists of in-person class sessions and 1-on-1 mentoring meetings. During this course, third-year dental students are required to complete an independent research project supervised by a faculty mentor; these projects are presented as part of a student-focused research symposium.¹⁻² Beginning March 15, 2020, evolving safety precautions, such as social distancing and reduced access to research facilities, have presented challenges. Human and animal subjects research has drastically declined, resulting in projects that are now retrospective, literature reviews, or survey-based. Current examples of topics include *Benefits of botulinum toxin a in dentistry: a systematic review* and *Assessing Access to care for special needs patients amid COVID-19 through survey analysis*. The pandemic and its associated long-term uncertainty have changed the types of projects that are feasible and how we provide student research mentorship.

2 | SOLUTION

We addressed common barriers students might encounter in receiving quality research mentorship.²⁻⁴ The key barriers prioritized were transitioning the research experience to a virtual environment, adapting our mentorship approach, and creating virtual research opportunities. Metrics of success include students matching with mentors and research completion.

2.1 | Virtual environment

We used the full extent of MUSC's learning management system (LMS), Harbor, a product of Blackboard Open LMS, which is accessible through a university account.⁵ We held virtual office hours and shared a repository of research resources via Harbor. Through Harbor, Blackboard Collaborate, and Microsoft Teams were used to create group discussions for student engagement and videoconferencing features provided a synchronous format for mentoring.⁵

2.2 | Adaptability

We recognized the need for adaptability due to working remotely. Our cohort of 33 mentors spend 2–3 hours weekly working with 1–2 students ($n = 71$) per project starting June 2020 and concluding in the 2021 Spring semester. We do not expect changes in research time commitment but recognize varying levels of experience in working remotely by both mentee and mentors. Therefore, we modified research timelines to accommodate students transitioning to remote interaction. We adjusted our availability to accommodate students' revised schedules, including communication outside typical work hours and concurrently meeting with multiple student groups with similar project topics.

2.3 | Conducting research virtually

We created opportunities for students to retrieve public-use data for secondary data analyses and codified a list of evidence-based topics that dental students can research

virtually, this information is accessible through Harbor.⁵ We are also using skilled experts from multiple campus units to virtually present research-relevant material, via Harbor, including: library resources and literature search tools, statistical methods, and submitting to MUSC's Institutional Review Board.⁵

3 | RESULTS

Between March and June 2020, all students ($n = 71$) selected mentors, students and mentors have adapted to virtually engaging, and research activity has commenced. Although COVID-19 imposes "socially-distant mentorships," we expect all students will complete and present their projects at the Spring 2021 Dental Student Research Symposium¹ and anticipate continuing components of virtual research mentorship following the pandemic.

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