

## Medical Education Research

### *'Compare UGME preclinical course evaluation during COVID-19'*

**Authors:** E Shen, PhD; Hong Gao, PhD; Patrick Reynolds, MD; Randy Clinch, DO, MS

**Background:** The transition of pre-clinical teaching from face-to-face to mostly virtual classrooms during COVID-19 raised justifiable concern over the quality of the pre-clinical teaching and learning. In the Wake Forest School of Medicine MD program, a mixture of recorded lectures, live-streaming from classrooms, virtual classroom (e.g., WebEx) were used to deliver pre-clinical content to MD students.

**Objectives:** This purpose of this study is to compare the data from course/block evaluations between pre-COVID-19 and during COVID-19 periods when delivery of course content had to be substantially changed. Specifically we looked at the data related to

- overall course satisfaction
- appropriateness of course instructional method

**Methods:** Course evaluation data were obtained for the cohort that was taught during the COVID-19 period and the cohort taught just before COVID-19. Only the courses in which the delivery method were substantially impacted were included in this analysis. A number of courses using small groups were still delivered face-to-face during COVID-19 (e.g., clinical skills) and they were not included in the analysis. The learning contents for all courses/blocks and the course directors and lecturers stayed the same between COVID-19 and pre-COVID-19 periods.

**Results:** The following table shows the block/course evaluation results by course/block. Across the block/courses of interest, there was little change to student overall satisfaction and student perceived appropriateness of course instructional method. It should be noted some of the blocks/courses that were rated lower by the respondents had improved results during COVID-19 periods, especially the pulmonary block.

Block	Delivery Method	Overall Course Satisfaction (Excellent + Good)		Appropriateness of Course Instructional Method (Strongly Agree + Agree)	
		COVID	Pre-COVID	COVID	Pre-COVID
Digestive/Nutrition	Primarily Recorded lectures	100%	100%	100%	100%
Hematology	mix of WebEx and Echo live streaming/recording	97%	97%	97%	87%
Pulmonary	Primarily WebEx	68%	58%	73%	62%
Cardiovascular	Primarily Echo live streaming/recording	96%	98%	96%	98%
Renal	mix of WebEx and Echo live streaming/recording	89%	94%	85%	92%
Endocrinology/ Reproductive Health	mix of WebEx and Echo live streaming/recording	100%	97%	92%	97%
Rheumatology	Primarily WebEx	96%	100%	93%	96%
<b>Average</b>		<b>92%</b>	<b>92%</b>	<b>91%</b>	<b>90%</b>

**Conclusions:** Based on course evaluation data, student overall satisfaction and perceived appropriateness of instructional method were not negatively impacted by the changes to the delivery methods caused by COVID-19. One of the possible reasons is that course directors put many efforts into preserving the interactivity of sessions during virtual delivery. For example, the majority of the small group sessions were kept and moved into virtual format. Weekly Q/A virtual/live sessions were added to a number of course blocks. Creative ways were used to conduct simulation and patient contact sessions virtually. These may all have contributed to the stable student course satisfaction.