

Impact of COVID-19 pandemic on students' performance in a problem-based learning system: comparative study between face-to-face and virtual learning.

Background: Amongst all other educational institutions, medical schools suffered the consequences of the COVID-19 pandemic. Medical education requires a great deal of interaction between instructors and students, and in the final years, patients as well. In response to the pandemic, the College of Medicine and Medical Sciences at the Arabian Gulf University has applied virtual teaching/learning since March 2020 as an alternative to face-to-face teaching. The college used Moodle and Zoom as online methods for education. The aim of the present study was to evaluate the effectiveness of virtual medical education by comparing students' performance in final exams in face-to-face and virtual settings.

Methods: Following the college's ethical approval, this longitudinal study was performed on 183 medical students. Those students experienced 2 different successive methods of teaching/learning; Unit V as face-to-face followed by Unit VI as virtual settings. Students' performance in the final exams of both units was analyzed and compared.

Results: There was no significant difference in student performance between Units V and VI. Students' performance in the physiology part was equally effective in both units, while the difficulty index of both exams was insignificantly different.

Conclusion: Our results demonstrate that students' performance in final exams could serve as an objective parameter when comparing different educational settings. Our results also support the idea that, in certain aspects, virtual is equal to face-to-face medical education strategies.