

COVID-19 Impact on Medical Schools



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The immediate impact of COVID - 19

Student – faculty partnership severely undermined

Disruption of clinical exposure

Rotations to other institutions suspended

Assessments and summative exams cancelled or deferred

Harries et al. 2021 BMC Medical Education

741 students responded (30%) regarding March 17 2020 decision.

75.8 % felt it was appropriate for them to be removed from the clinical rotations.

34.7% had guilt feelings

33.5% were disappointed

27% were relieved

61.3% felt they should continue with their clinical rotations

83.4% would accept the risk of getting Covid 19 infection.

Most concern was not having enough PPE kits

Student Adaptations

COVID 19 pandemic courses

Telehealth patient care

Research or Education electives

Capstone projects to encourage critical thinking and problem solving.

Self-guided independent study

72% felt that their medical schools were doing everything they could do to help.

Mental health effects on students

SARS-CoV1 epidemic 2003

Hong Kong; Singapore & Toronto Medical Schools

Canadian students felt frustrated at being excluded and inability to help.

International evidence – students perceive an ethical obligation to help

Prepared to take the risk of infection

Concern about missing out on meaningful clinical experience

Hurricane Katrina - 2005

Tulane University Medical School

Students were evacuated

Accommodated at Baylor College of Medicine

33% experienced depression and academic results suffered.

Faculty and residents came together to serve the population.



How were the issues addressed

- Rapid and urgent solutions were needed
- Budgets were limited
- Student and faculty ability to deliver new solutions were variable. E.g. digital expertise
- Globally technical support services variable – low income countries

Online Courses



Combination of supportive faculty, institutions and highly motivated students. Great spirit! Positive Energy!



Online Asynchronous Distance Courses – e.g. recorded videos, webinars and podcasts.



Online Synchronous - e.g. virtual classrooms, tutorials, video conferences

Online Courses

- Students, faculty and institutions quickly adapted and developed expertise in online learning and teaching. Institutions moved from 5% to 100%.
 - Rapid co-development and sharing of online resources
- Capsule – Brighton & Sussex Med. Sch. 670/3,500 – 39 discip.
Speaking Clinically - Bristol Med. Sch. Video archive 900 cases
e-Learning for healthcare HEE
Charité Med. Sch. Tellme program 10k questions bank

Online Courses

- Rapid co-development and sharing of online resources
 - JiscMail Medical Schools Council – connected all UK Medical Schools
 - Rapid Mobilization of resources
 - Sharing of Library Resources
- Paradoxically savings on travel and accommodation.

Impact on Faculty

- Empowered to develop lessons – own interpretation. Not hierarchical
- Could choose format of delivery, setting and learning resources.
- Utilise learning management platform such as Canvas
- Encouraged creativity
- Increased institutional subscription to web conferencing platforms - Zoom; BigBlueButton; Microsoft Teams.
- Facilitated connectivity among students and staff.
- Asynchronous delivery enabled additional faculty to be recruited

Student Impact

- Students expressed their learning preferences - short loop feedback
- Staff able to refine teaching delivery and style. Passive learning?
- Students preferred variety: podcasts; webinars, narrated presentations, synchronous small group tutorials; feedback
- Small groups <25 became more active
- Chat function worked better. More reticent students participating.
- Lesson length – 40 minutes. Podcasts and Narrations – 20 minutes.

Curriculum Delivery

- Laboratory work abandoned – YouTube videos interim solution
- Teaching psychomotor skills requires hands on. Videos
- Students created instructional materials for COVID – Harvard.
- Critical self reflection and self learning.

Examinations

- Abandoned or delayed especially clinical such as OSCEs
- Used timed, non invigilated examinations.
- Double viewing with phone/laptop/desktop camera on student.
- Order of questions changed – to avoid cheating.

Student Teaching

- Virtual peer to peer – Univ. of Washington, Seattle.
- Observed and obtain feedback from other peer teachers.
- Across campuses and build a community.
- More availability and flexibility.
- Student enhancement of education and teaching.
- Development of leadership, communication and team working skills.

Conclusion

- Necessity is the midwife of innovation.
- Rapid transition to online teaching and virtual classes
- Challenges for developing psychomotor skills; assessments; examinations, residency and career choices.
- Lack of interaction with peers and faculty is disruptive
- Incredible coming together of students, faculty, institutions, professional organizations and digital industry.

Conclusion

- Covid 19 – a disruptive force or a catalyst for transformation of medical education
- Embed the competencies of professionalism, service to patients, personal accountability
- Consider the emerging competencies: population and public health; improving healthcare systems, use of data and technology

Conclusion

- Adapt Curriculum to Current Issues in Real Time
- Physicians with diverse skill sets and disciplines come together to solve complex health care problems.
- Professional and sociological challenges of homelessness, food insecurity, poor access to healthcare, lack of vaccinations and PPE.
- Graduate classes without lowering standards.
- Different approaches to competency attainment. Treat learners equitably.-
- Self discovery of the meaning of being a physician

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