Reminders, Refocusing and Rethinking: *Med Ed after COVID*
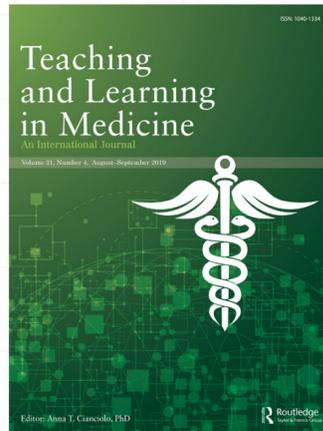
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Disclosure

Andrew Binks has no financial relationships to disclose of Conflicts of Interest to resolve

Pre-Clinical Education

Teaching and Learning in Medicine
An International Journal

Observations

Changing Medical Education, Overnight: The Curricular Response to COVID-19 of Nine Medical Schools

Andrew P. Binks, Renée J. LeClair, Joanne M. Willey, Judith M. Brenner, James D. Pickering, Jesse S. Moore, Kathryn N. Huggett, Kathleen M. Everling, John A. Arnott, Colleen M. Croniger, Christa H. Zehle, N. Kevin Kranea & Richard M. Schwartzstein ...show less

Pages 334-342 | Published online: 11 Mar 2021

Caveats and Cautions

Extraneous COVID impacts
- Anxiety
- Frustration
- Social Isolation
- "Maslow before Bloom" (Mullen 2020)

COVID specific curricular changes
- Modified Assessment
- Involuntary Virtual

"Tyranny of the Urgent" (Ajjawi & Eva, 2021)
- Faculty Development
- Instructional Design
- Direct transfer of class to virtual
- Student Training

Pre-COVID Forecast

Viewpoint

February 27, 2020

The Inevitable Reimagining of Medical Education

Ezekiel J. Emanuel, MD, PhD[1]

» Author Affiliations | Article Information

- "The End of Preclinical Classroom Instruction"

- "preclinical training from a few outstanding professors"

- "Students could work on their own for preclinical training"

Autonomy of Learning

Increased intrinsic motivation

(Deci & Ryan, 1985)

(Skehan, 1989)

Successful Learning

- More autonomy

- Higher engagement
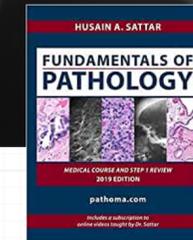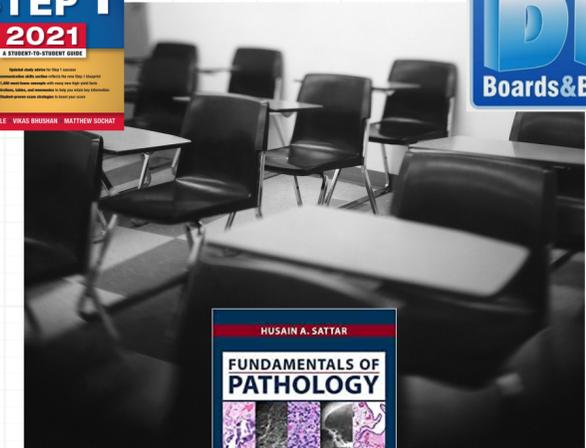
- Time for independent learning of basics

- Using less class time but increase its value

- Specifications Grading

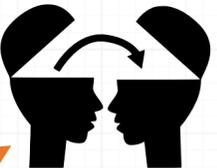- Appreciate prior experience

Accepting Responsibility
(Attribution theory)

Social Learning

- Use of small group methods more 'successful' online than lectures

Social Learning Theory

(Bandura, 1977)
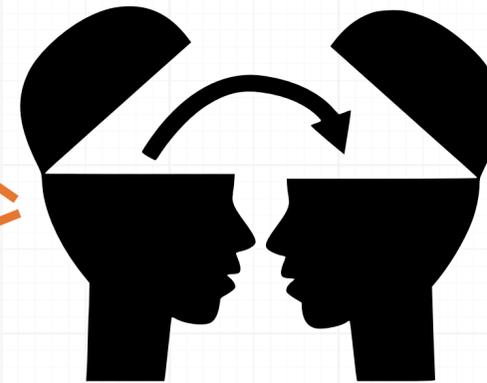
- Lack of social presence online

- Diminished learning environment

Online Education

Collaborative Learning & "The more knowledgeable other".

(Vygotsky, 1934)

Heterogenous views, knowledge and experiences

Interaction with peers

Individual accountability

Positive interdependance

Cooperative Skills

- Expanded use of small group methods

- Novel small group methods with emphasis on Medical Education

Accessibility of Medical School

- Two thirds of U.S. Undergraduate programs gave choice for submitting SAT scores or not

- More diverse intake in 2021

- American College of Physicians called for waiving MCAT and taking holistic approach

MCAT: Barrier to entry?
(Young, 2012; Hanson& Lavallee, 2010)

Mid-range MCAT = increased diversity
(Terregino et al, 2020)

STEP1 change & COVID = more diverse applicant pool

(Anachebe, 2021)

Joint programs or EAPs.

E-MCAT, or replace it?
(Corridon, 2021)

Holistic Review Framework
(Schwartzstein et al, 2013; Conrad, Adams, et al, 2016)
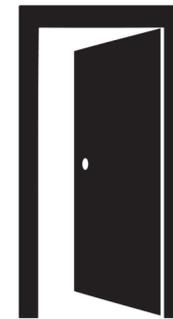
Post-COVID Forecast

Viewpoint

February 27, 2020

The Inevitable Reimagining of Medical Education

Ezekiel J. Emanuel, MD, PhD[1]

≫ Author Affiliations | Article Information

JAMA. 2020;323(12):1127-1128. doi:10.1001/jama.2020.1227

- "The End of Preclinical Classroom Instruction"

- "preclinical training from a few outstanding professors"

- "Students could work on their own for preclinical training"

Theory is the same as Practice... in theory

Autonomy of Learning → Reduced Classroom hours (66 hours to 16 hours)

Specifications Grading

Social Learning → PBL maintained (groups of 7)

Groups of 4 students, 4 cases, each 4 hours

Tuesday (2-hours)

| Presentation of a Clinical Case | Develop a differential diagnosis | 'Illness script' signs & symptoms |

Thursday (2-hours)

'Concept Map' the case

Assessment

Products and Process

THE EIGHT ROLES OF THE MEDICAL TEACHER
The purpose and function of a teacher in the healthcare professions

Ronald M Harden | Pat Lilley

Foreword by John Norcini

ELSEVIER
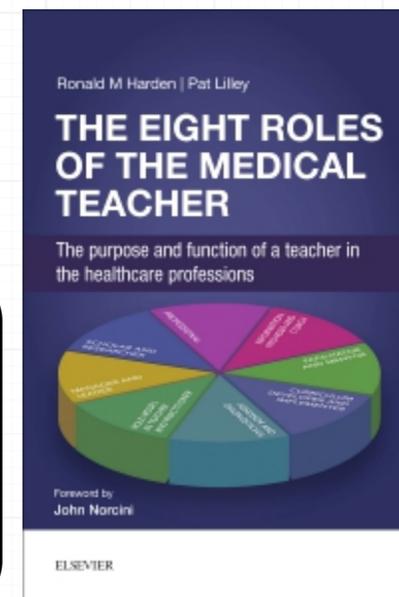
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Reminders, Refocusing, and Rethinking Medical Education after COVID

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Objectives

1. Review the sudden challenges in clinical education at the start of and throughout the pandemic

2. Discuss lasting and modified innovations for long-term clinical learning and practice

3. Explore telemedicine in clinical education and skills practice

Important Guidance for Medical Students on Clinical Rotations During the Coronavirus (COVID-19) Outbreak

March 17, 2020

AAMC (Association of American Medical Colleges) Chief Academic Officer John E. Prescott, MD, issued the following statement on new guidelines for medical schools during the coronavirus (COVID-19) outbreak:

"The AAMC has issued new guidance for medical student clinical rotations during the coronavirus (COVID-19) outbreak.

The AAMC strongly supports medical schools pausing all student clinical rotations, effective immediately, until at least March 31. First and foremost, this temporary suspension will allow medical schools a window of opportunity to develop and implement appropriate programs to fully educate all their students for their return to clinical rotations with (a) up-to-date information on COVID-19; and (b) appropriate steps in place to ensure their own and their patients' safety. This pause will allow the medical education community, including learners, to develop appropriate educational strategies and alternative clinical experiences to best assure safe, meaningful clinical learning for students. It will also help with current concerns about

Impacts on Clinical Education

Pre-Clinical Clinical Skills Curricula

- Immediate Conversion to video-conferencing small group sessions
- Asynchronous learning with online modules
- Emphasis on Small Group Learning and Autonomy
- Clear impact on Physical Exam Skills learning
- Uncertain impact on Communication and Team Building Skills learning

Clerkship Students

(Rising) Fourth Year Students

Impacts on Clinical Education

Pre-Clinical Clinical Skills Courses

Clerkship Students

- Taken out of Clinical Sites→Virtual Clerkships" or "Virtual" Electives
  - Asynchronous modules, small group learning exercises
  - Multiple schools working together to create shared video-conferencing exercises
- Many editorials
  - Medical students essential members of the team
  - Medical students are future physician workforce
- Students sought out service learning opportunities
  - Volunteered in clinics and hospitals, triaging, testing, and eventually vaccinating

(Rising) Fourth Year Students

Theoret C, Ming X. Our education, our concerns: The impact on medical student education of COVID-19. Med Educ. 2020

Stachteas P, Vlachopoulos N, Smyrnakis E. Deploying Medical Students During the COVID-19 Pandemic. Med Sci Educ. 2021

Impacts on Clinical Education

Pre-Clinical Clinical Skills Curricula

Clerkship Students

(Rising) Fourth Year Students

- Immediate Conversion to video-conferencing small group sessions
- Sub-I's postponed and limited opportunities prior to residency applications
- Changing rules on away rotations, residency applications
  - Some positive changes, enhancing equity in the process?
- Step 2 CS delays, then discontinued

What we learned…

- Many of the same learning tools for pre-clinical medical education were very effective for clinical education
  - Small group learning
  - Autonomous, self-directed, and asynchronous learning approaches
- Clinical Faculty served as
  - Resources for information
  - Facilitator
  - Coaches
  - Advisors
  - Developers of Alternative and Innovative Curricular Approaches

Rose S. Medical Student Education in the Time of COVID-19. JAMA. 2020
Osheroff N. The COVID-19 Pandemic: a Year Lost, or a Year Found? Med Sci Educ. 2021

And also…we found

- Bedside and clinic learning remain essential
    - Medical students are part of the healthcare workforce
    - Physician workforce needs medical students
    - Virtual learning only a valuable supplement

- 1st and 2nd year clinical learners
    - Physical Exam learning
        - Innovative virtual ideas, not the same though
    - Advanced communication skills and teamwork
        - Videoconferencing small group work?
        - Many schools now back to in person

Telemedicine became an emphasis

- Surged as a practice model during the pandemic

- Many ongoing benefits
  - Improved and Timely Access
  - Keeps in person spaces available for those who really need them
  - Affords views into patient's living environment/lifestyle medicine

- When learner's were/are not able to participate in person, bridges our learner's desire for meaning and value with their need for educational experiences

Cain R, Shafer Klink D, Yunus S. Telemedicine implementation in family medicine: Undergraduate clerkship during COVID-19 pandemic. Med Educ. 2020

Telemedicine became an emphasis

- When learner's were/are not able to participate in person, bridges our learner's desire for meaning and value with their need for educational experiences

- While proficient with electronic social communication, learners may not be instinctively applying those skills in the most effective way for telemedicine
- **We learned benefits/need for deliberate curricula and practice**

Cain R, Shafer Klink D, Yunus S. Telemedicine implementation in family medicine: Undergraduate clerkship during COVID-19 pandemic. Med Educ. 2020

Telemedicine Curricular Content

- Communication Skills—they are different on a virtual platform!

- Introductions and how to begin a visit

- Expressing empathy and understanding

- Developing a "Webside" Manner

- Physical Exam Skills

- Recognize which skills can be assessed virtually

- Clinical Decision Making

- Assess severity of illness through history and virtual exam maneuvers

- Determine when a patient may need in person evaluation

Telemedicine Communication Skills

- Introduce themselves
- Professional Appearance (themselves and background)
- Identify patient
- Assure privacy
- Set agenda and initiate interview
- Establish rapport including making "eye" contact
- Demonstrate empathy
- Summarize concerns
- Construct a shared plan

https://achonline.org/COVID-19/Telemedicine

https://med.stanford.edu/presence/initiatives/stanford-presence-5/tele-presence-5.html

Telemedicine Decision Making

- Did they elicit onset, location, duration, character, severity, and associated symptoms of complaint?

- Did they assess hydration status?

- Did they attempt applicable virtual exam maneuvers?

- Did they consider whether they could manage at home with virtual follow-up versus need for in-person visit?

Assessing Telemedicine Skills

Direct Observation

- Create a feedback form that you can fill out while you are observing
- Share form with learner in advance

Assessing Telemedicine Skills

Create simulated videos of a "bad" encounter (e.g. messing up all the communication skills noted) versus a "good" encounter

- Have learner watch then set time to discuss together

- Can create a series of these/modules for a full curriculum to cover topics more one at a time rather than all at once

- Alternatively a series of role plays so the students practice

Assessing Telemedicine Skills

Deliberate Practice and Feedback

- Find a method for the learners to get meaningful practice <u>and</u> feedback

Summary and Take Home Points

The pandemic accelerated changes already underway, emphasizing small group and asynchronous learning

Group and asynchronous modules are very effective adjuncts to clinical education

Medical students are part of the healthcare workforce, present and future; both students and the workforce benefit from their participation in clinical care and learning

Telemedicine is an area rich for learning, practice, and participation to give clinical learners meaningful roles and practice in care with patients and teams

Feel welcome to be in touch with future questions!
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