My Appreciation to You

I want to thank all of you for enduring through this OLLI course on “The Good, the Bad, and the Ugly” in the history of Medicine and Healthcare.

I apologize if sometimes the information seemed scant, but the topic is huge and I only tried to give a bird’s-eye view of the issues. The optional reading list has many references for those of you who might want to dig deeper into any issues.

I intended this last session to be short, with a longer time for overall questions. Corona has shattered those plans.

You may still reach me on nestorbabydoc@gmail.com

Session 8
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MEDICAL EDUCATION IN THE USA

Objectives for Session 8

- Explore the history of Medical Education in the US.
- Analyze the progression of physician's education.
- Study the consequences of the Flexner Report.
- Explain the current apprentice-like system.

Early Colonial Period (1)

- In early 17th century medicine was practiced by doctors, apothecaries, barber-surgeons or midwives imported from England.
- In Europe, the Greek Galenic theory of humor imbalance as cause of illness was prevalent.
- Therapy was by a *depletory regimen* (bleeding, blistering, purging, vomiting and sweating).
- Some local folk herbal doctors also comforted the ill.

Early Colonial Period (2)

- Physicians were graduates of Oxford or Cambridge and licentiates of the Royal College of Physicians.
- Training was mainly theoretical, with limited knowledge of anatomy, some *materia medica,* and no physiology.
- Physicians were gentlemen and treated mainly the upper class.
- They did not work with their hands (surgery!).

Early Colonial Period (3)

- Education was a 2-3 year program with formal lectures in a European school.
- This was followed by 2-6 years of apprenticeship with local doctor (s) who provided practical knowledge.
- Many assumed the title of doctor without having gone through all the steps.
- Regulation, control and validation not established.

Other Medical Resources

- Another medical resource were the apothecaries.
- They compounded drugs, and practiced medicine where no physician was available.
- Until WWII, apothecaries or druggists were often the first to be called upon for medical advice.
- Because of needs in the colonies, religious Ministers often learned Medicine as part of their training.

The Barber-Surgeons

- Surgery was done by the barber-surgeons, who were tradesmen beneath and subject to the physicians.
- In theory, they could only treat injuries, fractures, *bloodletting*, catheterizations, pulling teeth, draining abscesses, dressing ulcers and doing amputations.
- They were not allowed to practice medicine.
- In reality, they were the general practitioners for the poor.

Progress of Care

- By the 18th Century, the majority of physicians were product of the apprenticeship system.
- Care in the colonies was as good as in the Europe.
- Many ministers and physicians consulted books and attended lectures to stay up on the current science.
- Most academic doctors became general practitioners as they couldn't rely on apothecaries, midwives and barber-surgeons to take care of other concerns.

THE FIRST SCHOOLS

Medical Degrees

- General Court of Rhode Island gave a medical degree to John Cranston and licensed him to administer “physicke and practice chirurgery” in 1663.
- In 1723, Yale gave a medical Degree to Daniel Turner in return for a gift of books!!!
- In 1765, John Morgan convinced the College of Philadelphia to start a school of Medicine.

Morgan and Medical Education

- He accused the majority of American physicians of “slaughtering their patients through ignorance”.
- Following European ideas, he declared that medicine needed clinical observation & physical experiments.
- Stated that physicians should not be required to combine medicine, surgery and compounding drugs.
- First colonial medical school was founded in 1766.

THE FLEXNER REPORT AND ITS EFFECTS

The Flexner Report

- Also called Carnegie Foundation Bulletin Number Four.
- Report of medical education in the United States and Canada, by Abraham Flexner in 1910.
- Called on American medical schools to:
  - Enact higher admission and graduation standards.
  - Adhere strictly to mainstream science in their teaching and research.
  - Revamp and centralize medical institutions.
- Many American medical schools fell short of the standards, and nearly ½ of such schools merged or were closed outright.

Flexner and African Americans

- Flexner advocated closing all but two of the historically black medical schools., Howard and Meharry, so five other black schools were closed.
- He said that black doctors should only treat black patients and should serve roles subservient to white physicians.
- “The practice of the Negro doctor will be limited to his own race, which in its turn will be cared for better by good Negro physicians than by poor white ones.“
- He argued that, if not properly trained and treated, African-Americans posed a health threat to middle/upper class whites.

Effects of Flexner Report

- Closure of black schools and black students not being admitted to US medical schools for 50 years after Flexner have contributed to the current low numbers of American-born physicians of color.

- Howard and Meharry struggled to remain open because they had to meet the institutional requirements of white medical schools, producing a divide in health care access between white and African-Americans.

- Not until 1969 did the American Association of Medical Colleges (AAMC) ensure access to medical education for African-Americans and minorities by supporting the diversification of medical schools.

MEDICAL SCHOOLS IN THE US

Medical School Structure

- Usually affiliated with a major University.
- Grant a Doctor of Medicine (MD) degree after a four year prescribed course of studies.
- Osteopathic Schools grant a Doctor of Osteopathy (DO) degree after a very similar course of studies.
- 2 first years are pre-clinical basic sciences, followed by 2 years of hospital rotations through Pediatrics, OB-GYN, Surgery, Internal Medicine. (Core rotations)

Medical School Admission

- Generally highly competitive and very expensive.
- Criteria include grade point averages (GPA), Medical College Admission Test (MCAT) scores, interviews, and letters of recommendation.
- Most students have a bachelor's degree in a biologic science, and some students may have a master's degree.
- A degree in biological sciences is not required, but a set of undergraduate courses in scientific disciplines (Pre-Med) is preferred.


WHICH ONE GOT INTO MEDICAL SCHOOL?
REJECTED
The Indian American Applicant
Vijay
3.1 College GPA
31 MCAT Score
Member of the South Asian Student Association
The African American Affirmative Action Applicant
Jojo
3.1 College GPA
31 MCAT Score
Member of the Organization of Black Students
ACCEPTED

Medical School Curriculum

- First 2 years include anatomy, pathology, physiology, pharmacology, biochemistry and biostatistics.
- Second 2 year Core clinical rotations (clerkships) are done at the home hospital or at affiliated hospitals with approved faculty.
- During the 4th year, students do optional specialty rotations at hospitals in or out of state.
- These match their prospective residency interests

RESIDENCY TRAINING

Residency Training

- After medical school, students must do a *Residency* in their chosen specialty (states require for licensure).
- They enter the “Match”:
  - Choose up to 10 programs they would prefer.
  - Send their documents, also often interview.
  - Students rank their choices in order of preference.
- Hospitals rank the applicants by *their* preference.

“The Match”

- The National Residency Matching Program (NRMP) is a non-profit, Non Governmental Organization to place medical students into residency programs.
- It uses computer algorithms to match both hospitals and students to their highest choice.
- All results are mailed at the same time, and many schools have a “Match Day“ ceremony on the third Friday in March each year.

Board Certification

- After 3-5 years of residency, doctors go into practice in their specialty.
- Usually, after 2 years of practice they take the Board exam in their specialty (written, oral, or both).
- If they pass, they can say they are “Board-Certified”.
- A mandatory recertification can occur every 5-12 years, depending on the specialty.
- Currently trying to have a “Maintenance of Cerification” (MOC) rather than a single exam.

Fellowships

- After residency, doctors may become sub-specialists by engaging in further training (3-6 more years).
- They must also take a Sub-Board exams and recertify every 5-10 years.
- Some fellowships can only be done in very high-level university Hospitals with superb technology and human resource availability.

OFFSHORE MEDICAL SCHOOLS

Offshore Medical Schools (2)

AUA: Antigua

IAU: St. Lucia

AUB: Barbados

AUC: St. Maarten

Offshore Medical Schools (1)

- Usually denote a school outside the US mainland,
- Includes Caribbean schools and schools in Mexico (Guadalajara, jokingly called “Guadalaharvard”) and the Dominican Republic.
- Mainly private, expensive, for-profit schools aimed at Americans who failed to get admitted to a US school.
- Most have US clerkships to improve chances of their graduates to enter US residency programs.

Offshore Medical Schools (3)

- Variable rates of approval with US accreditation agencies, making entrance to residencies difficult.
- Many US citizen students can get a US government subsidy for their tuition expenses.
- US schools condemn these schools and deride their quality.
- However, test scores are very similar to US schools.

Medical School in Cuba

ELAM: This school gives 100% full ride scholarships with tuition, books, housing, uniforms, supplies and a modest monthly stipend to poor minority applicants from underprivileged countries all over the world.

Approved by ECFMG, WHO, and the California Medical Board (strictest in USA).

Sponsored by the Cuban government.

(Problem with ideology?)

My Opinions of the System (1)

- Medical education in the US is very expensive, even despite scholarships and loans.
- The length and structure could be modified so that the Pre-Med content is part of a 5-6 year curriculum, and does not require prior college education.
- Further integration with offshore schools needed to improve their content and maximize chances of entering residencies in US.

My Opinions of the System (2)

- Scientific knowledge is fine but education is lacking in human contact and social interaction with patients.
- Training in tertiary care centers makes students focus on high-tech spcialties.
- Levels of debt may push students into choosing specialties with high-reimbursement possibilities.
- We need more primary care physicians.

Thank You !