

Competency-Based Medical Education: Professional and Personal Perspectives

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- Objectives

- Describe the implications of “competence” in the current practice of medicine
- Describe how perspectives from clinical, educational, and personal viewpoints shape “competency”
- Recognize challenges in determining areas of medical practice requiring competence

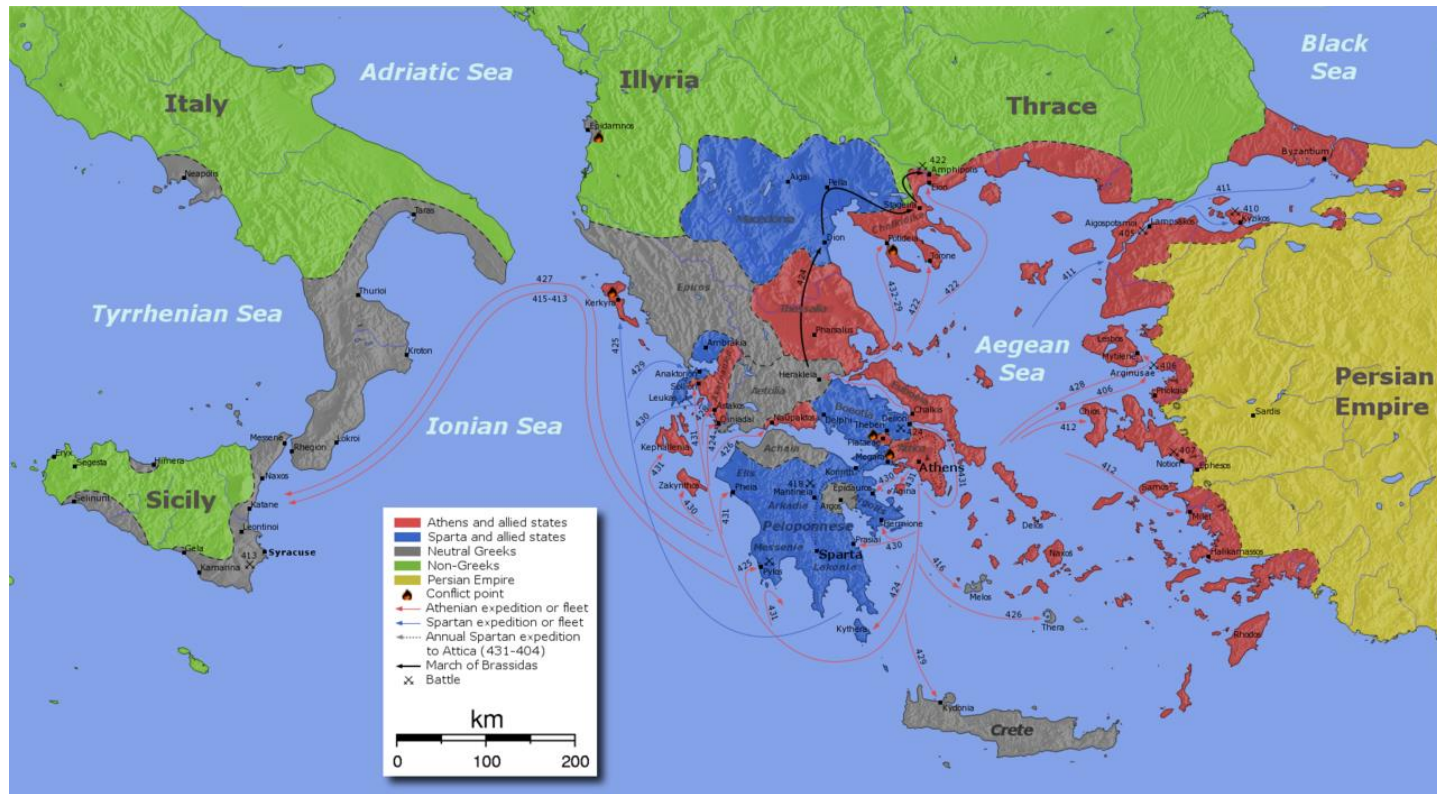
- Conflicts

- None reported

“Competence”

- What does this mean to us, professionally (as clinicians and educators)?
- What does this mean to us, personally (as patients)?

“Competency-Based Education”



Computer-Based Learning



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“Competency-Based Education”

- Athenian prisoners kept in quarries
- Syracusans “released” prisoners who could recite Euripides, and the others were left to die...
- (The ultimate “Pass/Fail” grading paradigm...)

Competency-Based Education

- L.W. Cureton (1971):
- “There is no record that anyone received A for effort.”



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Competency-Based Medical Education

- Medical education in America
 - Apprenticeship--“competency” determined by mentor
 - 1:1 observation/collaboration
 - Rise of “classroom” education and proprietary medical education (with or without secondary education)
 - Professional and public backlash facilitated:
 - Sectarian medical education
 - State licensing boards
 - Move toward university-based medical education

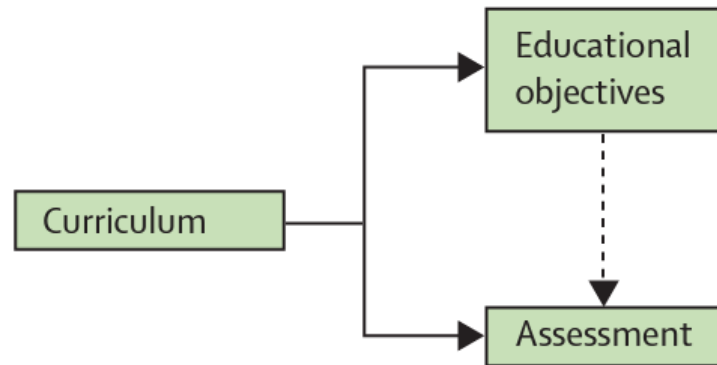
Competency-Based Medical Education

- University-based medical education
 - Flexner report, 1910
 - Medical schools were assimilated into university environment (departments)
 - Acquired administrative, financial, and pedagogical characteristics of universities

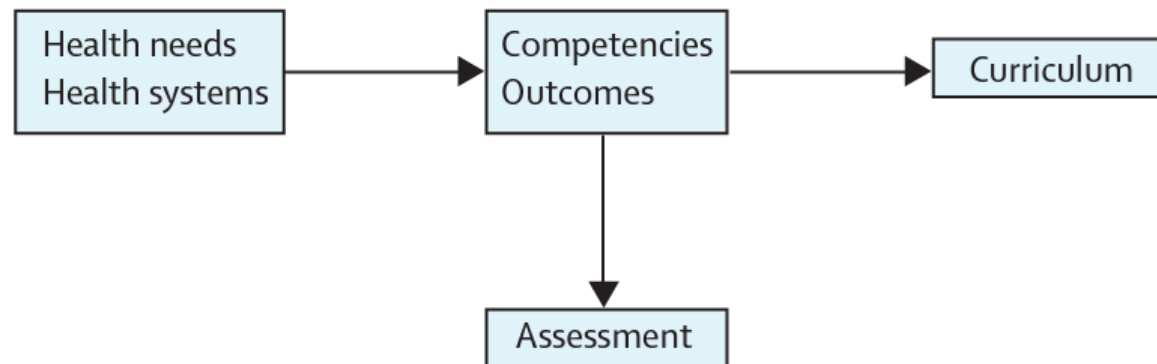
Competency-Based Medical Education

- “Competencies” chosen by faculty
- “Competency” defined by grades
 - Ranking, rating, and sorting students
- Drove “performance” (exams) rather than “mastery learning” (application to patient care)

Traditional model



Competency-based education model

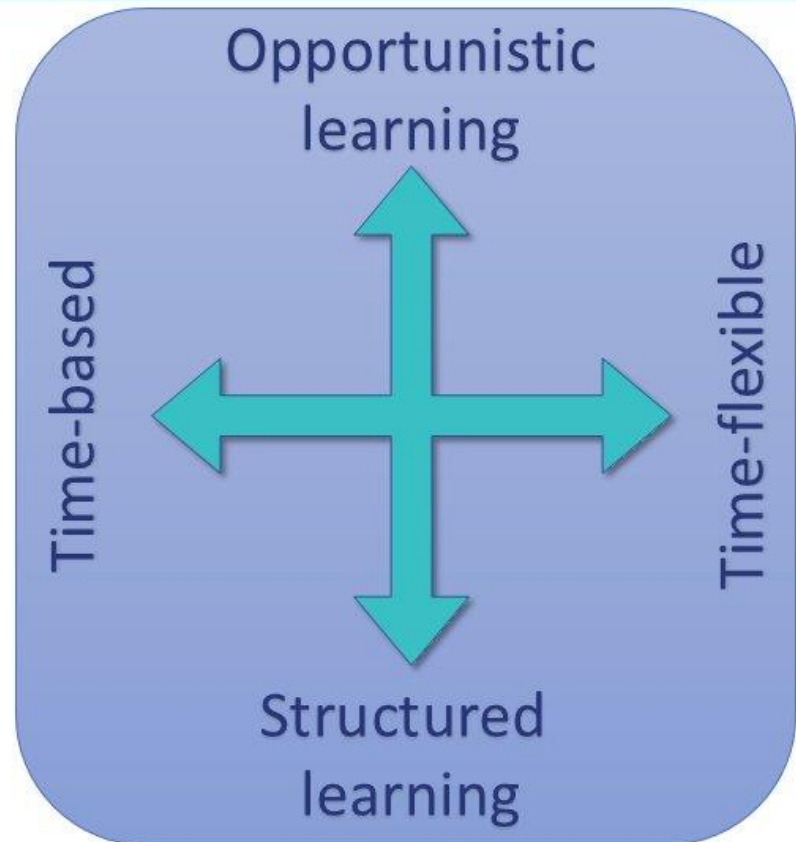


Frenk, 2010, Lancet

Competency-Based Medical Education (CBME)

1. Outcomes-based
2. Emphasizes abilities
3. Learner-centered
4. De-emphasizes time-based training

Dagnone et al. (2019); Frank et al. (2010)



Achieving Competency-Based, Time-Variable Health Professions Education

Recommendations from the Macy Foundation Conference

Josiah Macy Jr. Foundation | 44 East 64th Street, New York, NY 10065 | www.macyfoundation.org

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JMF--2017

- Challenges to Patient-Centered Care:
 - Fragmented Care
 - Slow Diffusion
 - Disruptive Technology
 - Ineffective Collaboration
 - Etc...

JMF--2017

- Challenges in Health Professions Education
 - Information Explosion
 - Discontinuity of Education
 - Student Debt Burden
 - Faculty Burnout
 - Assessment Challenges
 - Marginalization of Patients
 - Challenges to Workforce Diversity
 - Inadequate Preparation for Transition
 - Inadequate Faculty Development

JMF--2017

- Challenges in Health Professions Education
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 - **Marginalization of Patients**
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 - Inadequate Faculty Development

Personal Perspective

- 2017
 - GI bleeding, bilateral pulmonary emboli, recurrent bleeding, embolization, pancreatic mass
 - Biopsy—undifferentiated carcinoma
 - PET scan—bone, lung, spleen “mets”

Personal Perspective

- 2017-2018
 - Folfirinox, 4 rounds
 - Weight loss

Personal Perspective

- Jan 2018
 - “Salvage” Whipple procedure
 - Anaplastic carcinoma of the pancreas
 - Negative margins and nodes
 - Benign granulomas in spleen
- Jun 2018
 - Lung biopsy
 - Benign granulomatous disease (sarcoidosis vs. sarcoid-like reaction)

Personal Perspective

- 2018-2021
 - Serial imaging and tumor markers
 - Pneumonia
 - Recurrent pulmonary embolism
 - Recurrent GI bleeding duodenal/jejunal ulcer
 - Hematuria

Personal Perspective

- 2021-now...





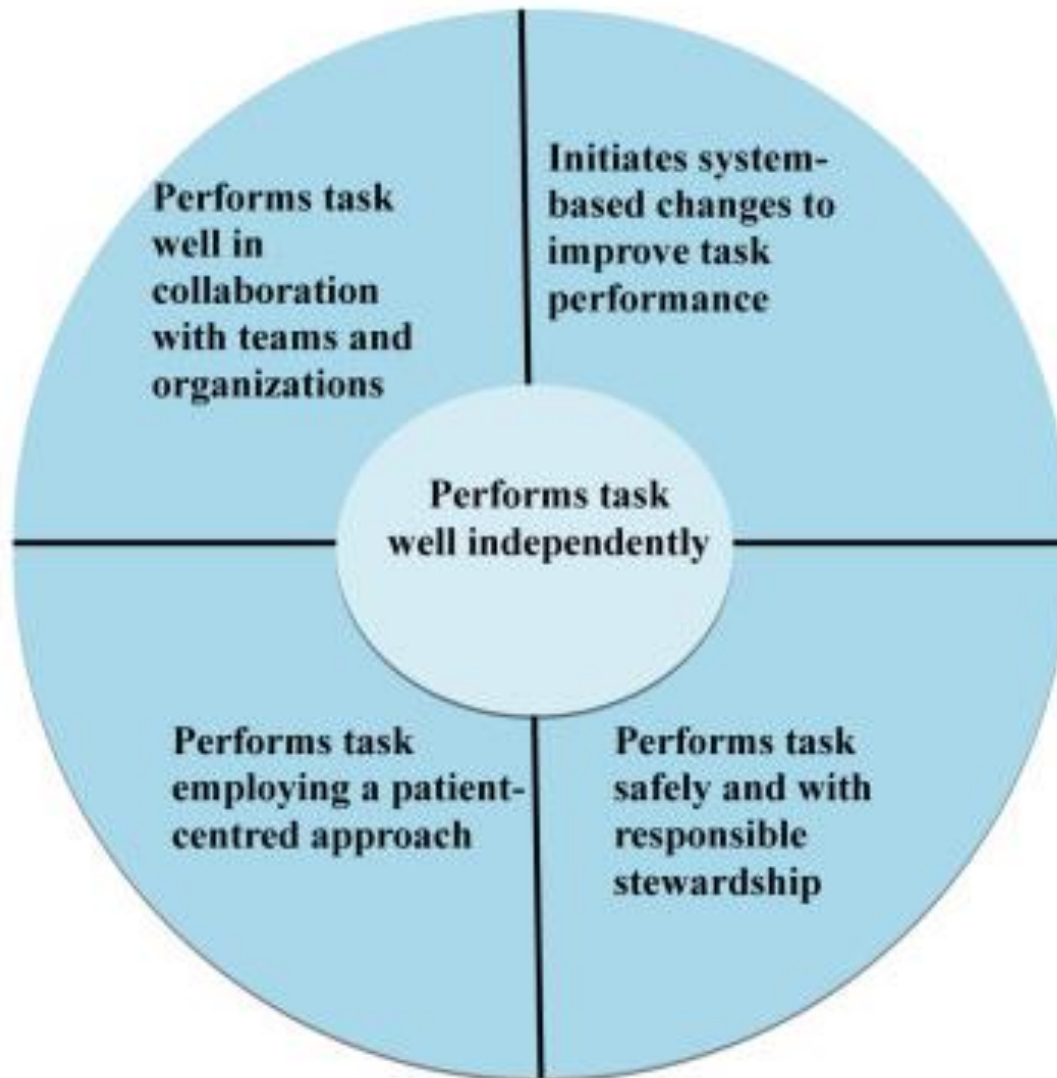
Core Entrustable Professional Activities for Entering Residency

Core Entrustable Professional Activities for Entering Residency: Toolkits for the 13 Core EPAs - Abridged

Learn

Serve

Lead



EPA vs. Competency

- EPAs are what physicians do.
- Competencies are who physicians are.

EPA 12

- Basic cardiopulmonary resuscitation (CPR)
- Bag-mask ventilation (BMC)
- Sterile technique
- Venipuncture
- Insertion of an intravenous line
- Placement of a Foley catheter



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Personal Perspective

- Teams:
 - Primary (Family Medicine)
 - GI
 - General Surgery as back-up
 - Cardiology (CCU admission)
 - Radiology
 - Etc...

Personal Perspective

- Serial lab draws:
 - CBC (or hemoglobin)
 - Troponins
 - Type and screen
 - Periodic creatinine and electrolytes
 - 12 blood draws in a 24-hour period...

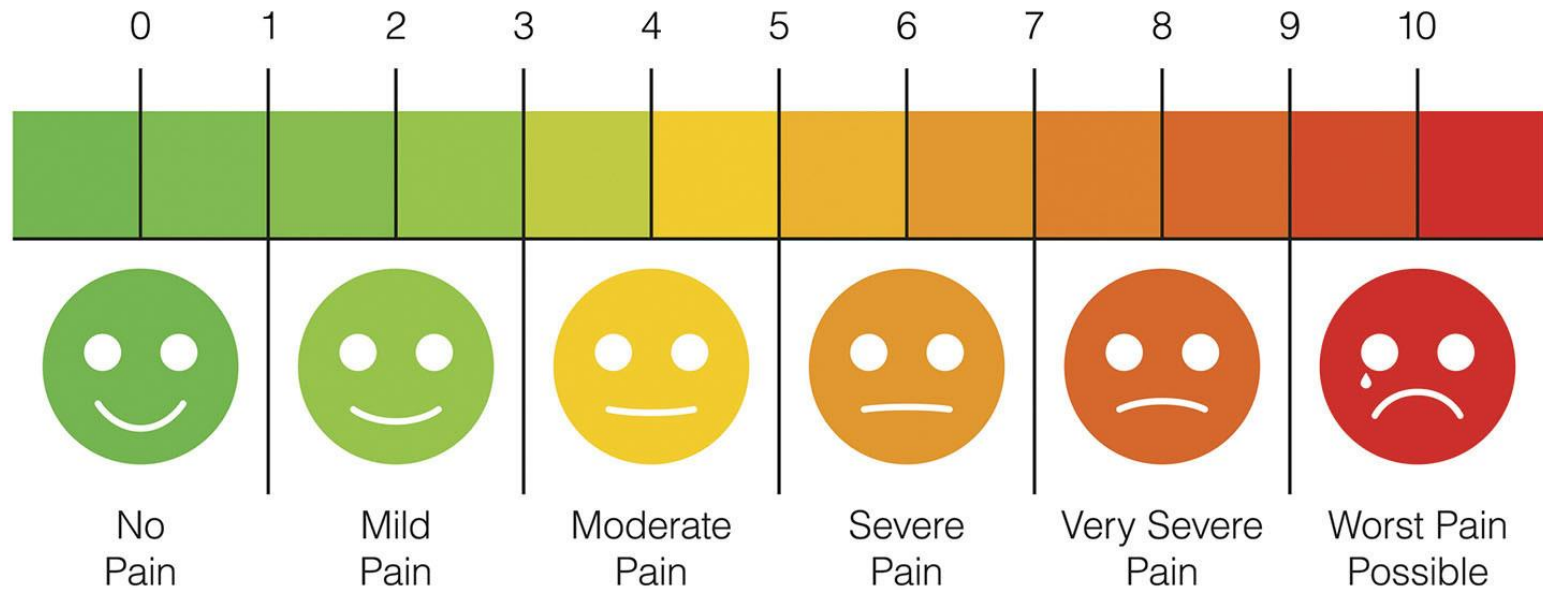
Personal Perspective

- “I will let you draw my blood 8 times each day, but no more than that. So, pick your times wisely.”
- CBME in Health Systems Science
 - Safety
 - Quality/value-based care

EPA 12--Procedures

- Systems-based practice:
 - Pre-Entrustable Behaviors
 - “Demonstrates frustration at cost-containment efforts, viewing them as externally mandated and interfering.”
 - Post-Entrustable Behaviors
 - “Uses tools and information technology to support decision-making and adopt strategies to decrease cost and risk to individuals.”

PAIN SCALE



Personal Perspective

- Post-op Whipple patients have a lot of pain...
- POD1 is easy...
- POD2...

Personal Perspective

- Post-op Whipple patients have a lot of pain...
- POD1 is easy...
- POD2...



Personal Perspective

- Alternating oral analgesics with intermittent IV narcotic for “break through pain”
- Order for PCA not entered/recognized
- Long night..

EPA 4—Enter and discuss orders

- Patient Care
 - Pre-Entrustable Behavior
 - Recalls clinical information in the order elicited.
Limited ability to gather, filter, prioritize, and connect pieces of information.
 - Post-Entrustable Behavior
 - “...ability to link current findings to prior clinical encounters allows information to be filtered, prioritized, and synthesized into...broad diagnostic categories”

EPA 12 and 4

National Efforts to Implement EPAs

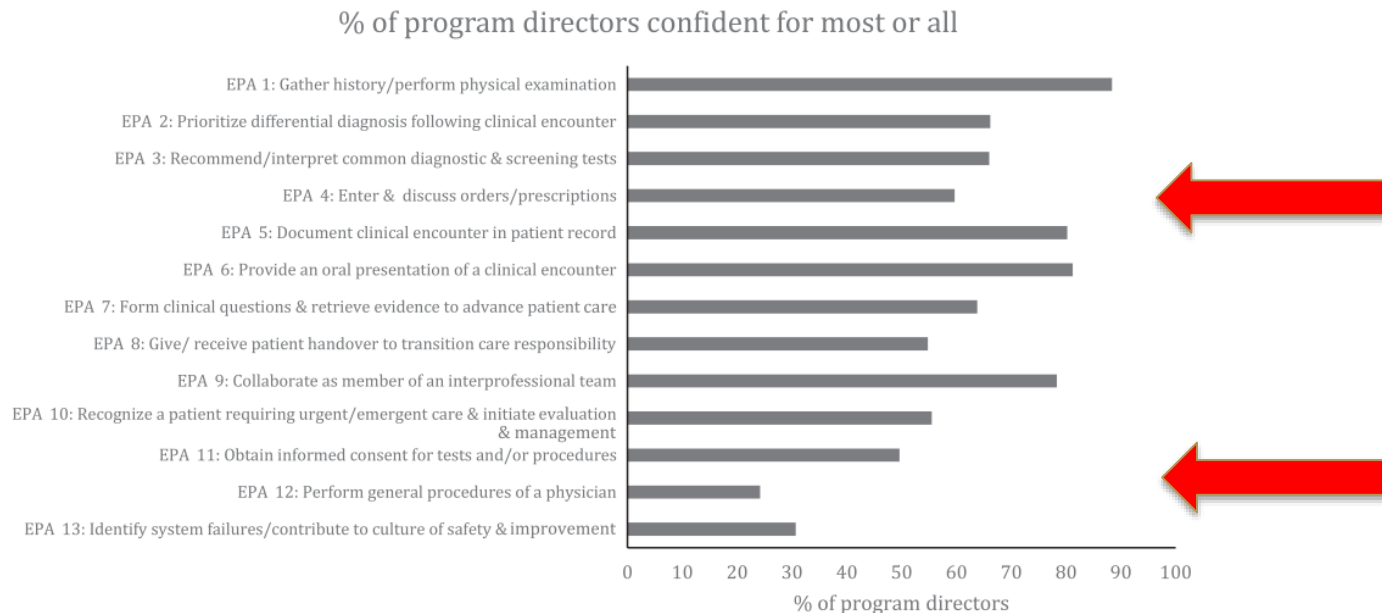


Figure 1 The AAMC 13 Core Entrustable Professional Activities (EPAs) for entering residency and 2014 AAMC program director EPAs survey results. Percentage of program directors "confident for most or all" = percentage of program directors who responded "most" or "all" to the following item on the survey: "Considering only the PGY-1 residents in your program who are 2014 graduates of LCME-accredited U.S. medical schools, please indicate how many residents you are confident were prepared to do the following without direct supervision in the first week of residency:" (response choices: "No or few," "some," "most," or "all"). Total N = 503 program directors. Abbreviations: AAMC, Association of American Medical Colleges; EPA, entrustable professional activity; PGY, postgraduate year; LCME, Liaison Committee on Medical Education.

Examination of Entering Residents' Self-Reported Confidence and Supervision Needs Performing AAMC Entrustable Professional Activities

Background: The transition into graduate medical education training is widely recognized as 1 of the most stressful times for physicians. A potential contributor toward resident stress may be related to their real and perceived abilities performing clinical duties. In 2014, the Association of American Medical Colleges (AAMC) published a document titled *Core Entrustable Professional Activities for Entering Residency*. This list of entrustable professional activities (EPAs) addresses what residents should be able to clinically perform independently at the start of residency training. To date, there is limited published information on the

2018 also completed the supervision questions on the survey. Gender was equally balanced across respondents and they represented the following programs: family medicine (n = 28), internal medicine (n = 24), transitional year (n = 16), pediatrics (n = 14), and general surgery (n = 10). The most common activities residents reported confidence for were “performing history and physical examination” and “collaborating on interprofessional team,” representing 96% and 83%, respectively. Few residents reported confidence in “enter/discuss orders and prescriptions,” “performing general procedures,” “give/receive patient handovers,” and “identifying system failures and contribute to safety improvement,” representing 16%, 27%, 32%, and 42%, respectively. Reported resident need for supervision performing EPAs was highly correlated with their reported confidence levels. The 2 activities most commonly reported as not needing supervision were “performing history and physical examination” and “collaborating on interprofessional team,” representing 72% and 59%, respectively. Residents confident in the latter activity had a 33 (95% CI 1.4–758.0) times greater odds of reporting no need for supervision in performing the activity. Essentially no residents reported being able to “recognize urgent/emergent care and initiate evaluation/management” and “enter/discuss orders and prescription” or “performing general

Resident Perspectives

- “Confident”
 - H&P 96%
 - Collaborating on team 83%
 - System failure/safety 42%
 - Give/receive handoff 32%
 - Perform general procedures 27%
 - Enter/discuss orders 16%



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My Right Knee

Donald M. Berwick, MD, MPP

Despite some impressive recent gains, improving the glaring deficiencies in health care quality is proving to be very hard. Improvement is local, rather than system-wide, and is sustained with difficulty, rather than becoming an intrinsic feature of care.

My right knee will probably need to be replaced soon. This has given me the opportunity to define, in very personal terms, 5 specific dimensions of “total quality” that I will require from the medical institution that does my surgery and that every patient has the right to require of their encounters with the health care system. Don’t kill me (no needless deaths). Do help me, and don’t hurt me (no needless pain). Don’t make me feel helpless. Don’t keep me waiting. And don’t waste resources, mine or anyone else’s.

Given my requirements, it is not clear that any health care institution in the United States will want to take me on as a patient. Although at this point individual institutions can meet some of these requirements, no single institution can deliver on all of them. Generating the energy, insight, and courage we need to get to “total quality” may require those of us who work in health care to get much better at seeing images of ourselves in the people we help. As Gandhi said, “You must be the change you wish to see in the world.”

Ann Intern Med. 2005;142:121-125.

For author affiliation, see end of text.

www.annals.org

Competencies...

- Don't kill me.
 - Don't hurt me. ("Relieve my pain.")
 - Don't make me helpless.
 - Don't make me wait.
 - Don't be wasteful.
-
- "At a system level, these are a vision. At a personal level, they are more than a vision; they are my needs."

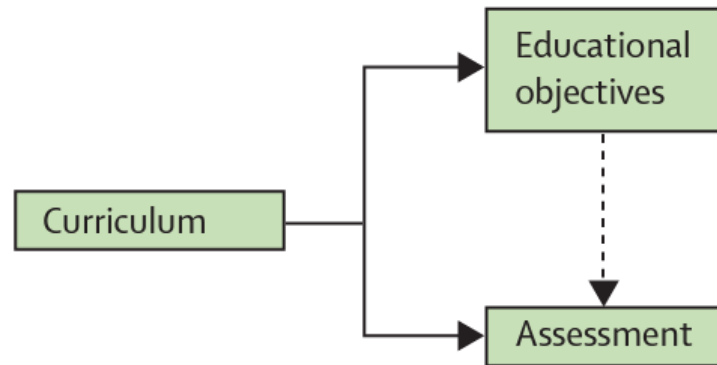
Competencies...

- Don't kill me.
 - Don't hurt me. (Relieve my pain.)
 - Don't make me helpless.
 - Don't make me wait.
 - Don't be wasteful.
-
- Help me flourish in health and illness.

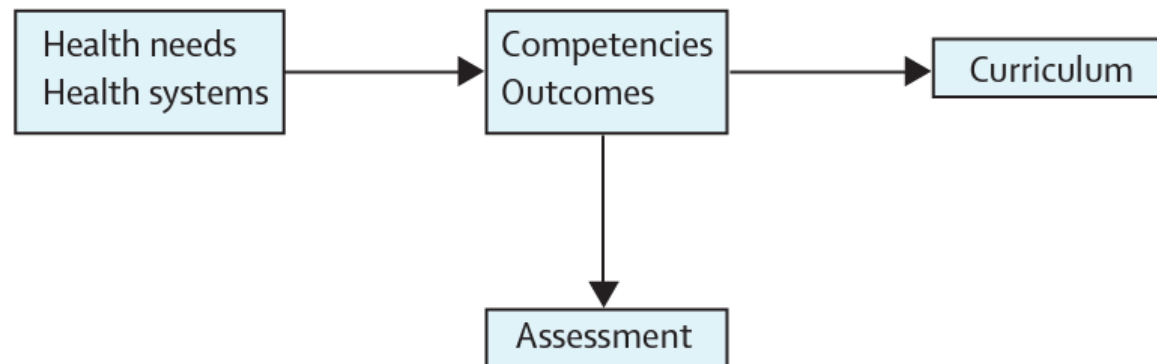
Competencies...

- Meaning-making in health care
- Intensely personal at the patient level
- Challenging at the academic level

Traditional model



Competency-based education model



Frenk, 2010, Lancet

Comments or Questions?

