Stepping Beyond the Step 1 Climate

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My first year of medical school - an orientation to Step 1

- Little attention was given to systemic barriers to health and well-being
- Step 1 was seen as the sole take away of the preclinical years
My experience with Step 1

• Long hours spent memorizing content of questionable relevance and accuracy
• Physical and emotional exhaustion
• “When I walked out of the exam, I felt a sense of profound emptiness. I erupted from a void dissociated from reality. Life seemed surreal and chaotic” (Haider 2018)
• My experience was not unique
The “Step 1 climate”

• Learning environment: test-prep materials as the *de facto* national curriculum
  • Learning for real life versus the boards
• Impact on diversity: underrepresented minorities, women, and students from low income families; “tiered worthiness” among medical students
• Student well-being: depression, burnout, and suicide
• We joined others in calling for a “truly” pass/fail Step 1
Response of Drs. Katsufrakis and Chaudhry

• Title: “Improving residency selection requires close study and better understanding of stakeholder needs” (Katsufrakis and Chaudhry 2018)
• “Thoughtful and broad consideration of stakeholders and their concerns … will be necessary…”
• “Does Step 1 performance predict residency success? To our knowledge, no study has been done to answer this question.”
  • This contradicts previous literature (Prober et al 2016; McGaghie et al 2011; Gliatto et al 2016)
  • Whose burden of proof is it?
• Conflict of interest?
Centering patients

• The purpose of licensure examinations is to ensure a minimum threshold of competency.
• In a field rife with inequities based on race (Williams and Cooper 2019) and gender (Kent et al 2012), can we say we are guaranteeing competency?
• Our patients are not multiple choice questions.
Step 1 reform as an opportunity

• A brief history of medical education: Flexner Report of 1910, the first NBME exam was given in 1916, a multiple choice version was developed in the 1950s, and it was converted to electronic format in the 1990s (www.nbme100.org)

• “The need for a fundamental redesign of the content of medical training is clear” (Cooke et al 2006)

• What are the barriers?

• It is an ominous sign for patients who interact with the medical establishment if we in medical education are unable to address our problems
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Conflicts of interest

• My opinions are my own, and do not reflect those of organization(s) of which I am a member, volunteer, or employee

• I was an invited participant to the InCUS Conference
Important details about USMLE Step 1 exam

• Originated as a licensing exam
• Psychometrically designed “pass/fail”
• Students spend up to $825 on Step 1 resources
• Correlates with performance on subsequent exams; not
  • Residency progression
  • Faculty evaluations
  • Clinical skills
• Different groups perform “differently”
  • Women
  • Those historically underrepresented in medicine
  • Non-traditional students
  • Those with financial need
Stakeholders

• Medical students
• Patients
• Medical licensing boards
• Medical schools
• Program directors
Stakeholders

- Medical Students
  - The *de facto* curriculum
  - Judge curriculum as “high yield” or not
Stakeholders

• Medical Licensing Boards
  • Set floor for physician competency in their state
Stakeholders

• Medical Schools
  • Threshold for progression (?)
  • Metric to judge adequacy/quality of preclinical curriculum
  • Proxy for how likely their students will be “to match”
Program Directors

• Use Step 1 scores to identify which medical students will get full review of their application & interviews! Some PDs use “cut off score”
  • Frequently set at < 220-240 (higher for more competitive specialties)
  • 90% residency graduates (pediatrics, obstetrics, orthopaedic surgery, anesthesia, internal medicine) pass board exams if Step 1 scores 200-227
• Use as proxy for who will pass certification board (used as measure of program quality by ACGME)
The Program Director must provide a final evaluation for each resident upon completion of the program. V.A.2.a)

• The specialty-specific Milestones, and when applicable the specialty-specific Case Logs, must be used as tools to ensure residents are able to engage in autonomous practice upon completion of the program. V.A.2.a).(1)

• The final evaluation must: V.A.2.A).(2)
  • Become part of the resident’s permanent record maintained by the institution, and must be accessible for review by the resident in accordance with institutional policy. V.A. 2.a).(a)
  • Verify that the resident has demonstrated the knowledge, skills, and behaviors necessary to enter autonomous practice. V.A.2.a).(2).(b)
Program Directors need:

• More relevant measures to assess and communicate medical school performance
  • ACGME Competencies - milestones language
  • Core Entrustable Professionable Activities for Entering Residency

• A tool specifically developed for resident selection (that correlates with performance)
My questions for those of you listening:

• How do YOU use Step 1 scores in your institution?

• What would you lose if Step 1 were either reported pass-fail, or discontinued entirely?
Contact us

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References

- Chen DR, Priest KC, Batten JN, Fragoso LE, Reinfield BI, Laitman BM. Student Perspectives on the “Step 1 Climate” in Preclinical Medical Med. 2019;94:302-304.