Third Year Clerkships – Let’s Get Real

The Emperor

Caesar
External data – calls for change in the third year

- Health care is in a time of massive change
- Literature is crowded with calls for change.
- Frequency of calls indicates there is a problem, but no satisfactory solutions (as of yet)
- Irby report calls for maximizing flexibility and individualizing student learning, as well as a need for a more competency-based education

Acquisition of Complex Skills

• How is competency achieved from a theory based perspective?
  – Deliberate practice (Ericsson)
    • Relationship with mentor
    • Specific expectations (individualized)
    • Observation
    • Practice
    • Immediate feedback
    • 10 years or 10,000 hours
  – Apprentice model (legitimate peripheral participation) (Lave & Wenger)

A Changing Clinical Practice Landscape

Dramatic change in the last 20 years
Time of Dramatic Change

• Shorter lengths of stay
• Faculty/residents rotate frequently
• Restricted duty hours
• Short relationships between students and faculty
• Idiosyncrasy and opportunism
• Faculty need pictures of students to remember them at assessment time
• Faculty must ‘start over’ with each new student, assuming he/she knows nothing
• Mismatch with student needs

Unintended Outcomes

• “Near random clinical experiences of students do not provide consistent, repeated practice with important clinical cases to achieve minimally adequate performance on these objective performance examinations, leading to scoring ‘psychogymnastics’ to titrate fail rates.” (Petrusa)

Current goals read like wish lists

- Six core clerkships each have >100 goals & objectives recommended by their respective educational bodies
- Can you guarantee ALL students will reach them all?
- Can you guarantee that even ONE student will meet them all?
- Everyone is learning something, but content is different from one student to the next and there is no way to know which student got what.
Determining the Scope of the Problem
Internal data – Longitudinal Performance Exam

- **Medical student acquisition of clinical working knowledge.**
- **Williams RG, Klamen DL, Hoffman RM.**

**RESULTS:**
- Student diagnostic pattern recognition and clinical data interpretation ability demonstrated a steady upward growth curve but slowed in Year 3.

**CONCLUSIONS:**
- Medical students acquired diagnostic pattern recognition ability and all years of medical training contributed. The rate of clinical data interpretation performance improvement was slower, and the absolute performance level was lower. What was surprising was the lower rate of improvement in diagnostic pattern recognition and clinical data interpretation performance for students during their 1st year of clinical training (clerkship year).
- This study was reproduced with almost identical results at 5 other medical schools.

**Clinical reasoning is not growing much in clerkships**
LPE data – DPM (5 schools)
LPE Data – CDI (5 schools)

Mean Clinical Data Interpretation – percent correct

Years of Medical School Completed

School A  School B  School C  School D  School E

SIU
Internal data – Diagnostic justification competency

• Diagnostic justification exercise (9 cases in the SCCX exam)

• 50% of cases were judged poor or borderline by 2 blinded expert judges

• *We need a much more rational, less idiosyncratic method for teaching clinical reasoning*

Williams RG, Klamen DL. Examining the Diagnostic Justification Abilities of Fourth Year Medical Students. Acad Med. 2012;87:1008.
Internal Data – Socialization Study

- Students know that there is a shelf exam at the end of the clerkship – and it is the item most likely to fail them – so they disappear to study – this is NOT like an apprenticeship!

- Han/Roberts study showed on average students were spending 3 hours per day in clinical work

- **Students are 1) socializing into medicine and 2) figuring out what they want to do as a career, but they are NOT learning clinical reasoning on the clerkships** – (LPE data supports this)

Internal Data – Coaching Study

• Experience with coaching (five factors)
  – Same as deliberate practice

• Experience with clerkships (six factors)
  – Same as deliberate practice, but OPPOSITE
  – Sixth factor was about assessment/doing well in the clerkship
Internal data – Coaching study

• Direct quotes about the third year
  – “In a coaching situation, coaches’ major goal is for you to perform well. In clerkships, major goal is to impress attendings.”
  – “Didn’t feel that the 3rd year was to build clinical skills. It was knowledge building toward Step 2 in a different setting. The clinical got in the way of the study for the shelf.”
Year 3 Transformation (Y3T)

• Clinical reasoning (deliberate practice)
• Socialize into medicine
• Find ‘your people’ (apprentice model)
  – Data suggests that the fit of group culture is one predictor of specialty choice
CCC (critical clinical competencies) curriculum

- Clinical reasoning competence through deliberate practice
- 12 CCCs – The ability to reason through and diagnose 12 presenting complaints
- 144 total diagnoses (12 for each CCC)
- Longitudinal exposure with active engagement, expert role modeling, and deliberate practice – Years 1-3
- Fully online
- Comprehensive uncued CCX exams Y1, Y2, Y3 (SCCX)
- Competence, or DO NOT GRADUATE
Why CCCs?

- CCC curriculum will take the pressure off Y3 to try to systematically teach clinical reasoning to all students (which is the ideal, but is not occurring)
Year 3 Transformation – 1st 8 months

- Socialize into medicine
- Find your people
- 8, 4-week immersive clinical experiences
  - EM
  - Family & Community Med
  - Internal Med
  - Neurology
  - Obstetrics/Gynecology
  - Pediatrics
  - Psychiatry
  - Surgery
- Khan videos ‘need to know’ replace lectures
- Shelf exams removed
- Gold standard is 1 student:1 faculty for 4 weeks
Why Immersive First Half?

- Allow students to socialize and ‘find their people’ earlier in the year
- Protect a pure focus on clinical work – 3 hrs/day → 6-7 hrs/day
- Embrace the realities of the clinical environment: idiosyncrasy and opportunism
  – Don’t worry about all students having the ‘same’ experience (1-2 days/faculty)
    - Decrease very short times with many faculty
    - Increase opportunities for legitimate peripheral participation and coaching
Y3T last 4 month ‘Deep Dive’

• Opportunities for individualization
  – Time for longitudinal experiences
  – Time for more in-depth subspecialization investigations
  – Advanced coaching opportunities (chances for longer contact)
  – Contextualized training opportunities (ex. Transitions of care)
  – Acceleration in chosen fields
  – Early remediation if necessary
Let’s get real

• Answering the call for change
• Embracing our new reality
Thank you!

• Questions?

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