# Remediation of Gaps in Clinical Skills-One Size Fits One


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# Importance of Clinical Skills Exams

- Patient encounters in the clinical setting rarely observed
- Faculty lack confidence to recognize and are reluctant to fail poorly performing students
- Clinical Skills Exams are a valid assessment of clinical competence and correlate with performance in internship and practice.

Remediation Techniques for Student Performance Problems after a Comprehensive Clinical Skills Assessment. Saxena et al. Acad Med 2009, 84: 669-676

# What is measured

- Professionalism
- Communication/interpersonal skills
- History taking
- Physical exam
- Clinical reasoning
- Others (presentation skills, patient education, procedural skills)

# What does failure mean?

- Failure in medical school may predict struggling as a doctor and has patient safety implications
- As clinical skills exams occur late in third year or early in fourth, time for remediation is limited.

The remediation challenge: theoretical and methodological insights from a systematic review. Cleland et al. Medical Education 2013: 47: 242-251.

# Remediation is often focused on helping the learner pass the exam

- Traditional methods of remediation (identification of failure, remediation, repeat testing) may not fully address the reason for the failure
- While this three step method may result in pass of retest, it does not impact subsequent performance
- Generic one dimensional approaches do not address the often complex interplay of academic, personal, social and mental/health issues facing the struggling learner.

The remediation challenge: theoretical and methodological insights from a systematic review. Cleland et al. Medical Education 2013: 47: 242-251.

# Who is responsible?

2007 survey of US medical schools (74.6% response rate)

- Responsible faculty (32.1% Assessment Director, 25% Dean,19% Exam or assessment committee)

Remediation Techniques for Student Performance Problems after a Comprehensive Clinical Skills Assessment. Saxena et al. Acad Med 2009, 84: 669-676

# What do they do

- 93% reviewed and verified assessment scores
- 57% reviewed videos
- 49% met with failing student

Remediation Techniques for Student Performance Problems after a Comprehensive Clinical Skills Assessment. Saxena et al. Acad Med 2009, 84: 669-676

# Retesting after remediation

- 74% retested
  - 26% who did not retest cited cost, ability of faculty to determine competency or other priorities as reasons for not testing
- 23% require only a subset of cases which were equal in difficulty to the first

# What do learners tell us

- Failure can result in significant emotional trauma
  - Low self esteem
  - Blaming
  - Victimization
  - Social isolation
  - Inability to ask for or receive help
  - Disconnect between personal and academic
- Remediation plan is often more of the same

Medical students' personal experience of high stakes failure: case students using interpretative phenomenological analysis. Patel et al BMC Medical Education (2015) 15

# Remediation Framework

- Agree to a policy and procedure supported by institutional resources
- Administration, faculty and student buy-in
- Make it available to learners and faculty
- Updated as needed

# Remediation Framework

Step 1: Diagnostic phase-Establish a hypothesis for the performance gap

- Confirm validity of exam
- Review videos, post encounter notes, SP checklists, global scores and comments
- Reviews past CSE performances
- Contacts course/clerkship director to inquire as to any other issues that they think may have a role in this result
- Contact Assistant Dean of Student Affairs or delegate to discuss any other issues they think may have contributed to this outcome.

# Reasons for Performance Gaps

## DOMAIN KNOWLEDGE DEFICIT

- Patient centered communication skills
- Elements of history taking
- Physical exam techniques

Student Performance Problems in Medical School Clinical Skills Assessments. Hauer et al. Acad Med. 2007;82 (10 suppl):S69-72.

# Reasons for Performance Gaps

## DOMAIN KNOWLEDGE DEFICIT

- Clinical reasoning- a process in place to work through an unknown; which elements of history and physical exam to do to work up a chief complaint
  - Inability to recognize patterns of illness and match them to most probable diagnosis
  - Unable to develop an adequate differential diagnosis and reorder the differential as they accumulated data from the SP encounter
  - No process in place for clinical reasoning
    - do not know what history questions to ask or which exam to do

The efficacy of a targeted remediation process for students who fail SP exams. Klamen and Williams Teaching and Learning in Medicine. 23 (1), 3-11

# Reasons for Performance Gaps

**METACOGNITIVE/TESTING ISSUES**

- Time management/organization skills challenges (executive function challenges)
- Inability to engage in “fiction contract” and suspend reality in order to demonstrate abilities during CSE
- Insufficient preparation or poor understanding of focus of CSE-checklist driven
- Performance anxiety

Objective Structured Clinical Examinations: 10 Steps to Planning and Implementing OSCEs and Other Standardized Patient Exercises. Zabar, S. et al. Springer NY 2013

Deepening the Theoretical Foundations of Patient Simulation as Social Practice. Dieckmann, P. The Journal of the Society of for Simulation in Healthcare: Fall 2007-Volume 2- Issue 3- pp183-193

# Reasons for Performance Gaps

## DEFICIT IN "CORE PERSONAL COMPETENCIES IMPORTANT FOR ENTERING MEDICAL STUDENTS"

Students admitted with an unrecognized deficit in one or more of following core competencies:

- **Social skills**-demonstrates an awareness of others 'needs, goals, feelings and the ways that social and behavioral cues affect peoples' interactions and behaviors; recognizes verbal and nonverbal cues and adjusts behaviors appropriately in response to these cues.
- **Oral Communication**- effectively conveys information to others using spoken words and sentences, listens effectively; recognizes potential communication barriers and adjusts approach or clarifies information as needed.

Core Personal Competencies Important to Entering Students' Success in Medical School: What are they and how could they be assessed early in the admission process? Koenig, TW et al. Acad Med 2013:88:603-613.

# Reasons for Performance Gaps

## Psychosocial issues

- Prior diagnosis or new occurrence of mental health issues- anxiety and depression are most common
- Prior diagnosis or new occurrence of other health issues that interfere learner's life.
- Recent positive or negative life event (illness, wedding, death, new baby etc.)

# Reasons for Performance Gaps

## Failure to demonstrate Entrustable Activities

- Does not meet global assessment as described for the CSE
- Does not meet the key requirement outlined for key transitions points
  - Admissions to foundations
  - Foundations to Clerkship
  - Clerkship to Acting Internship
  - Medical School to Residency

Core Entrustable Professional Activities for Entering Residency AAMC November 2013

# Reasons for Performance Gaps

## Global Academic Challenges

- Undiagnosed learning disabilities
- Concurrent academic challenges leads students to triage clinical skills/CSE preparation
- Learners re-entering the curriculum (LOA, MD PhD etc.)

# Remediation Framework

## Step 2:  Pre-brief

- Educator prepares for meeting:
  - Creates a debriefing plan based on hypothesis backed by what was observed in the videos or shared in the comments or check lists.
- Learner prepares for meetings:  reviews letter sent to them, reviews scores and SP comments.  Prepares to share self-reflection on their strengths and challenges that resulted in the performance gap.
- Learner contacts Educator to set up meeting

# Remediation Framework

## Step 3:  Debrief (“with good judgement”) with the learner

- Create a safe and supported learning environment
- Invite learner to share personal, social and or health related information that may have played a role in performance
- Share your hypothesis based on evidence
- Ask learner to reflect on actual performance and share their thinking about
  - Why certain questions were asked or not asked
  - Why certain exams were done or not done
  - Working hypothesis
  - What learner considered to be the issue
- Can include review of videotapes

Helping without Harming Rudolph JW, Foldy EG, Robinson T, Skendall S, Taylor SS and Simon R. Sim Healthcare 8: 304-316, 2013.

# Remediation Framework

Step 4:  Create an individualized learning plan

- In consultation with learner, student support services, content educators, and SP educators
- Match intervention to performance gap/s
- Referral for psycho/social issues
- Incorporate deliberate practice with immediate feedback
- Clarify and agree to outcome measures
- Clarify and agree to expectations for success and consequences of a repeat failure

# Helpful

- Early and often learner assessment to allow for early intervention and or alternative career counseling
- Confidence in exam validity (ongoing quality improvement process)
- Defensible standard setting process
- Faculty development to ensure that underperforming learners are recognized, remediated and supported or offered alternative career counseling

# Remediation of Clinical Skills in Early Learners

- Integrated curriculum increasingly used in colleges of medicine
  - Students in clinical settings from first weeks of curriculum
  - Early emphasis on communications, patient care skills, professionalism
  - Clinical reasoning beginning in Year One

# Remediation of Clinical Skills in Early Learners-different expectations

- Objective Structured Clinical Examinations (OSCE's) used as part of block or periodic exams in first and second year learners
- Variable use in different schools
- Formative effect over time
- Checklisting vs. chunking of more basic competency goals
- Increasing difficulty of tasks over time

# Students Receive Case Data in Advance

- You are to see ***Abigail Garey***, an established patient coming in for blood pressure management. The blood pressure at her last visit was 164/89.
- You have **15 minutes** to collect the pertinent information and perform the following tasks:

- ❑ Obtain a brief interval history of her hypertension
- ❑ Review her medications
- ❑ Gather a focused review of cardiac symptoms
- ❑ Obtain blood pressure in one arm
- ❑ Palpate carotid pulses and auscultate for carotid bruits
- ❑ Palpate distal extremity pulses (radial, brachial, posterior tibial, and dorsalis pedis arteries)

- YOU DO NOT NEED TO TAKE A COMPREHENSIVE PAST HISTORY
- YOU NO NOT NEED TO EXAMINE THE HEART OR LUNGS, OR ABDOMINAL OR FEMORAL PULSES

# Early Learners and OSCE Expectations-a curricular example

- Four cases per block assessed by OSCE in Years 1 and 2
  - Two formative OSCE's, one before entering clinical offices
- Total of 16 cases year one, 12 cases year two are summative
- Rated by trained faculty raters, Kalamazoo scales
- Emphasis on communications and clinical skills training vs. clinical reasoning/diagnostic skills
- Some clinical reasoning tested by notes after encounters


- Journal of Graduate Medical Education, Joyce et al. 2010 June; 2(2):16 5-169
- Summative OSCEs in undergraduate medical education. Gormley. Ulster Med J. 2011 Sept: 80(3): 127-132.

# Early Learners OSCE Underperformance-domain based evaluation

- Interpersonal Communications issues identified
  - May identify underlying behavioral / learning/ or social issue
  - Patient-centered approach may need emphasis
- Some Professionalism issues
  - Dress
  - Boundary issues
- Physical exam/skills issues (Patient Care Domain)
  - May show knowledge issues
- Clinical Reasoning
  - Metacognition / integration of encounter findings with basic knowledge
- “Flagged students”-serious concerns


- Summative OSCEs in undergraduate medical education. Gormley. Ulster Med J. 2011 Sept: 80(3): 127-132

# Identifying Clinical Reasoning Issues

- Early learners need time to synthesize data gathered
  - Notes generated after patient encounter
  - Multiple choice questions pertaining to encounter
  - Limited information sharing with patient
    - Avoidance of medical advice is mandated
- Assess organization of interview as metacognition indicator
    - Forward thinking, illness script recognition

- Teaching, Evaluating and Remediating Clinical Reasoning. Baker et al. Academic Internal Medicine Insight 2010. 8:1.

# Reviewing OSCE Underperformers

- Those who fail to achieve a passing percentage in a domain assessed by OSCE (communications, clinical skills, professionalism, clinical reasoning)
- Those who are flagged by a rater as having communication or behavioral issues or skills deficits
- Those who are within 1 SD of class mean

- Remediating students' failed OSCE performances at one school: the effects of self-assessment, reflection and feedback. White, et al. Academic Medicine. 2009 May; 84(5)651-4

# Remediation of Clinical Skills in Early Learners

- Students identified as benefitting from remediation or extra attention are assigned to an educational expert
  - Videos and facilitator comment sheets are reviewed
  - Collateral evidence of performance issues is gathered if permissible
- Educational expert +/- review panel develops remediation plan
- Student review of videos and written reflection
  - Meets with educator
  - Knowledge review if needed
  - Practice with educator as SP if remediation needed
  - Other needs as identified
- May need formal retesting, but not always

# Remediation Of Clinical Skills in Early Learners

- Reflection, self or peer practice may be as effective as faculty mentored remediation
- Clinical precepting may be used
- Goal is to compete process before next OSCE
- Student and mentor should agree the deficit is corrected
- Increased performance on future OSCE's may be best mark of successful remediation/follow longitudinally with faculty coach


- Remediating students' failed OSCE performances at one school: the effects of self-assessment, reflection and feedback. White, et al. Academic Medicine. 2009 May; 84(5)651-4

# Addressing Resources Needed to Remediate

- Self reflections improve progress (with or without faculty input)
- Basic knowledge review
- Online programs of practice cases-help with clinical reasoning, knowledge deficits
- Peer practice/small groups
- Clinical assignments as practice sites
- Mentoring programs-unbiased mentor needed
  - Mentor training needed

- *Global performance assessment of student helpful*

# Take home points

- Process grounded within a conceptual framework
  - Metacognition
  - Self regulated learning
  - Reflection
  - Deliberate practice with immediate feedback
- Multiple strategies
  - Strategies should employ familiar approaches
  - Incorporate new strategies based on learning style
  - Individual and organized small group activities

# Final take home points

- Awareness of traumatic effect of failure on learner
- Recognize underlying social, personal and mental/health issues
- Commitment to a significant resource investment
- Separate remediation services from advancement process
- Goal to support life long learning vs. pass re-take
- Longitudinal progress assessment if early learner