

“You can observe a lot just by watchin’.”

Yogi Berra

Special thanks to Dr. Holmboe and Dr. Hawkins.

Workshop Objectives

- Review current state of
 - Physician clinical skills
 - Faculty evaluation skills
- Understand the importance of direct observation *by faculty* for assessment of clinical skills

Workshop Objectives

- Discuss practical strategies for *focused* direct observation
- Review rater training methods
 - Direct Observation of Competence (DOC) training

Workshop Elements

- Mini-Lectures:
 - State of clinical skills
 - Quality of faculty ratings
- Direct observation exercises
 - Performance dimension exercise
 - Frame of reference training exercises
 - Videotape exercises

Basic Premises

Accurate evaluation important:

- Summative: “high stakes” decisions
 - Competent versus not competent
- Formative: Feedback & professional development
- Professional obligation
 - Public accountability
 - Credible professional self-regulation
 - Faculty observation part of this obligation

Key Basic Clinical Skills

- Medical interviewing
- Physical examinations
- Informed decision making/counseling
- Basic procedures
- Clinical judgment/reasoning
- Reflective practice
 - Self-directed learning
 - Professional growth and improvement
 - Learn from errors

Are Clinical Skills Important?

Where do clinical skills fall into the hierarchy of physician competencies and mastery in an era of advanced technology?

Importance of Sound Clinical Skills

- Diagnostic errors
 - Bordage: Inaccurate/ incomplete medical interview one of leading causes
 - Graber: Faulty synthesis common factor in adverse events (hospital setting)
- Patient satisfaction
 - Higher with better communication skills
- Patient self-care and activation
 - Better adherence and outcomes associated with better physician communication skills

Diagnosis and Medical Interview

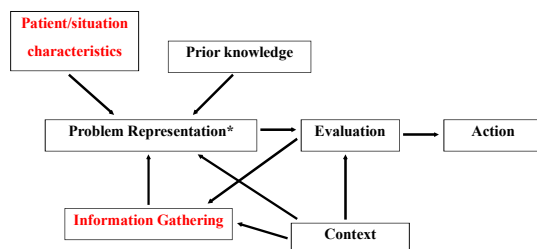
- Hampton (*BMJ*, 1975):
 - Medical interview: 82%
 - Physical exam: 9%
 - Laboratory: 9%
 - Study findings replicated by Peterson (1992)
- Kirch (*Medicine*, 1996)
 - Autopsy study over four decades
 - “Conclusive” information for diagnosis

Results: Kirch and Scaffi

Diagnostic Procedure	Application Rate	Conclusive Information	Misleading Information
History	96%	73%	<1%
Physical examination	95%	62%	2%
Standard lab tests*	90%	22%	2%
Imaging techniques	72%	35%	7%
Electrocardiogram	71%	23%	4%
Microbiological tests	17%	18%	3%
Histology and cytology	8%	28%	2%

* Serum chemistry, blood cell count, urinalysis.

Clinical Reasoning: A Primer



Gruppen and Frohna, International Handbook on Research, 2002

Clinical Skills: Trainees

- Stillman (*Ann Intern Med*; 1990)
 - Wide variability in MS4 clinical skills near graduation
- Sachdeva (*Arch Surg*; 1995)
 - Wide variability in surgery intern skills
- Lybson (*Acad Med*; 2004)
 - Wide variability of basic skills *needed to start* internship among new interns at University of Michigan on “entry” OSCE

State of Clinical Skills: Trainees

Vukanovic-Criley (*Arch Intern Med*; 2006)

- Study of cardiac examination skills
 - Computer-based, 50 question exam
 - Integrated visual and auditory skills
 - Med students (Y1-4), FP and IM residents, full time faculty, volunteer faculty, cardiac fellows (N=860)
- Results
 - No improvement after MS3 year except cardiac fellows
 - Range of mean scores:
 - 58.5% (MS3) – 60.2% (Fac)
 - Cardiac fellows: 71.75%

Clinical Skills: Practicing MDs

- Ramsey (*Am J Med*; 1998)
 - Incomplete history-taking / preventive health screening
- Braddock (*JAMA*; 1999)
 - Internal Medicine, Family Medicine, Surgery
 - 1058 patient visits: only 9% fulfilled core elements of informed decision making

Importance of Faculty

- Reilly Study (*Lancet*, 2003)
 - Reviewed 100 consecutive admissions to GIM service
 - Investigated the number of physical exam findings that:
 - Changed patient management
 - Changed diagnosis
 - “Incidental” findings not counted

Results: Reilly Study

- Northwestern Study
 - Faculty detected 26 PExam findings missed by residents that *changed* patient diagnosis and/or management

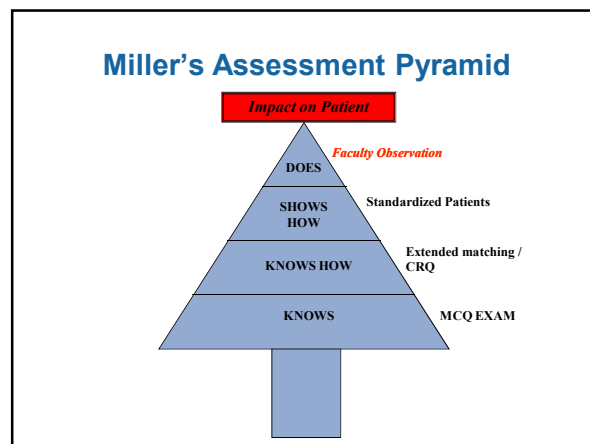
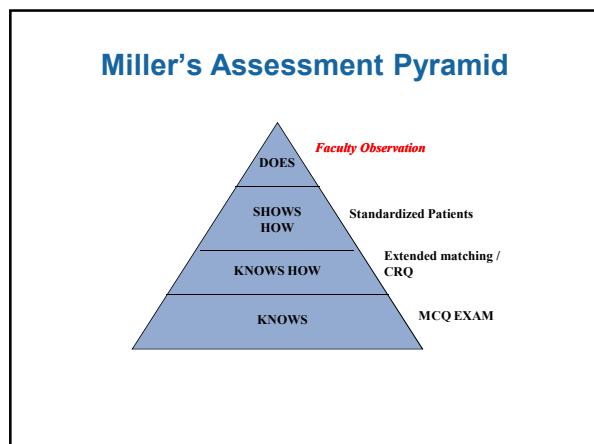
Importance of Faculty

- Wisconsin and USUHS Clinic Studies
 - Faculty assessment disagreed with that of house officer in up to 30% of patients
 - “Severity” of discordance varied between residents and between studies
- What has been your own experience?

Effective Supervision

AMEE Guide (Kilminster; *Med Teach*, 2007)

- Empirical evidence supports:
 - Direct supervision helps trainees gain skills faster, and behavior changes more quickly
 - Quality of relationship affects effectiveness of supervision
 - Continuity and reflection
 - Self supervision not effective
 - Better supervision associated with improved patient safety and quality of care.



- ### Clinical Skills: Themes
- Deficiencies exist across continuum
 - Not detected by other evaluation methods
 - Performance of basic clinic skills does not correlate with performance in other dimensions of competence

- ### Clinical Skills: Themes
- Students and Residents:
 - Aware of importance
 - Recognize under-emphasis in training
 - *Desire* better supervision
 - Without detection deficiencies in clinical skills cannot be corrected
 - Patient safety and quality of care at stake

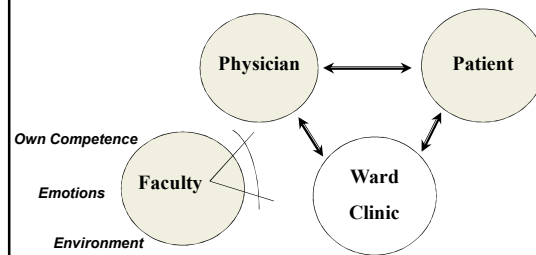
- ### Faculty Observation / Rating Skills
- Rating scale studies:
- Significant rater errors in use of scales
 - Halo effect (correlational)
 - Ratings based mostly on *perceived* knowledge and personality
 - Leniency error (distributional)
 - Failure to lower ends of scale (“Doves”)

- ### Faculty Observation / Rating Skills
- Herbers (1989) / Noel (1992)
 - Structured > open-ended form in detection of errors on a videotaped scripted to be marginal
 - Brief training video not effective
 - Increased accuracy ≠ discriminative ability
 - Kroboth (1992)
 - Poor inter-rater reliability
 - Rater training ineffective

Faculty as Raters – Key Issues

- Lack of observation of the actual skill(s) being assessed
 - Monthly evaluation form
- Faculty ratings:
 - Lack reliability (both intra- and inter-rater)
 - Often inaccurate
 - Possess weak validity
- Content and context specificity
 - Many faculty lack competence in the very skill(s) they are asked to assess

Faculty Observation



Faculty as Raters - Solutions

- Step 1: Getting faculty to observe
 - *Required* by accrediting bodies
 - Focused observations are logistically possible
 - 5 to 10 minute observations *are* valuable
 - Build on faculty “surprises”
 - The “You will not believe what I saw today” experience
 - Provide “usable tool”

Usable Tools

- MiniCEX
 - Simple, portable, reliable 7 category form
 - Evidenced-based; 3 large scale reliability and feasibility studies (2 US; 1 in UK)
 - Now *required* by UK National Health Service
- Checklists for medical interview
 - Calgary-Cambridge
 - SEGUE
 - Kalamazoo Consensus

Opportunities: Inpatient

- Hospital ward
 - Communication and PExam on daily rounds
 - Discharge instructions to a patient
 - Informed consent discussions
 - *Part* of admission work-up
- Emergency Department
 - Excellent for acute care: multiple interactions
 - Admission work-ups

Logistics: Outpatient Clinic

- One mini-CEX per trainee per day per week
 - One attending observes portion of first visit of the day
 - Minimizes disruption of clinic
 - Perform over course of *academic year*
 - *Easy to obtain 6-8 Mini-CEX's per year per trainee*

The Patient Encounter

- Sampling “parts” of the encounter:

INTERVIEW	PHYSICAL EXAM	COUNSELING
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Key Message: EMBED Observation in what you are already doing as part of clinical care and supervision

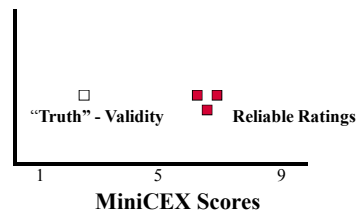
Faculty as Raters - Solutions

- Step 2: Improving reliability
 - Multiple brief observations
 - Perform over time: outpatient setting allows for longitudinal observation
 - Involve multiple faculty
 - MiniCEX: sufficient reliability for pass/fail determinations after just 4 observations

Faculty as Raters - Solutions

- Step 3: Improve accuracy and validity
 - Most difficult step
 - Improved with structured rating forms
 - Can be improved with rater training, but:
 - Brief training interventions (e.g. 15-30 minutes) do not work
 - Will need longitudinal approaches to FD

Reliability versus Validity



Does Faculty Training Work?

Performance Appraisal Literature:

- Can reduce rating errors
- Can improve discriminative ability
- Can improve accuracy

Approaches to Faculty Training

Empirically studied training methods:

- Behavioral Observation Training
- Performance Dimension Training
- Frame of Reference Training
- Direct Observation of Competence Training

Break!

Behavioral Observation Training

Three main strategies:

- Increase the amount of “sampling”
 - More observations lead to more accurate evaluations (“practice makes perfect”)
- Use of observational “aides”
 - Behavioral diary to record observed performance.
 - Checklists

Videotape Exercise

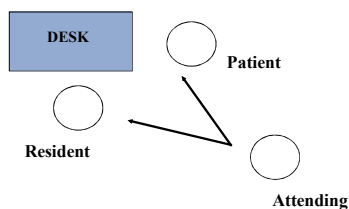
Situation: An attending is performing a miniCEX of a house officer performing a physical exam.

- Questions:
 - How well did this attending evaluate the house officer?
 - How was the resident-patient interaction affected?

BOT: Structuring the Observation

- Prepare for the observation
 - Faculty: Know what you’re looking for
 - Resident: Let them know what to expect
 - Patient: Let them know why you are there
- Minimize intrusiveness
- Correct positioning
- Minimize interference with the house officer-patient interaction
- Avoid distractions

Principal of Triangulation



Performance Dimension Training

- Method to help faculty identify and learn the specific dimensions of a competency
- Involves discussion of the “qualifications” required for each dimension of that competency
- Use specific definitions and criteria of competencies to “calibrate” faculty
 - Goal: get faculty on the “same page”

PDT Exercise

In your small group, discuss what should be the components of an effective counseling session for a patient starting a new medication

Frame of Reference Training

Goal is to improve
“judgment” and accuracy

Frame of Reference Training - STEPS

1. Raters given descriptions of each dimension - discuss “qualifications” needed for each dimension (PDT)
2. Faculty define what constitutes superior performance from the perspective of optimal patient outcomes
3. Faculty define and reach consensus on the minimum criteria for satisfactory performance. Then marginal criteria are defined.

Frame of Reference Training – STEPS cont...

4. Participants are given clinical vignettes describing critical incidents of performance from unsat to average to outstanding
5. Raters use vignettes to then provide ratings on a behaviorally anchored rating scale (BARS) - think typical eval form
6. Session trainer provides feedback on what “true” ratings should be along with rationale
7. Discussion ensues about discrepancies between trainer’s ratings and the participants’ ratings

Frame of Reference Training

- Most difficult aspect of FOR:
 - Setting the actual performance standards
 - Reaching agreement and consensus among teaching faculty
- Use Evidence whenever possible
 - E.g. Communication sciences

DOC Training

- Combination of:
 - Rater error training
 - Performance dimension training
 - Frame of reference training
 - “Live” practice in observation with standardized residents/patients
 - Individual evaluation and feedback
 - Group debrief with Eval and FB

DoC Training: Evidence

- DoC Training improves:
 - Rater stringency
 - Replicated in Canadian study (unpublished)
 - ↑ Accuracy in identifying unsatisfactory performance
 - Faculty comfort in performing observations

Direct Observation: Challenges

- Like all skills, requires training and practice
- Faculty “calibration” important
 - Agreeing on “metrics” of performance
 - Faculty comfort with own skills
- Faculty training
 - Brief interventions mostly ineffective

Observation: Helpful Hints

- Sample “parts” of the visit:
 - History-taking
 - Physical examination
 - Counseling
- Perform longitudinally
 - No need to do it all at once
 - Embed it in what you do
- Agree on performance criteria with faculty

Summary

- Basic clinical skills are important: so is the need to observe them!
- Observation is a complex skill that requires training and practice
- Direct observation by educators will remain a critical component of both evaluation and feedback

Questions

What good is direct observation if you can't give high quality feedback!



Types of Feedback

- **Positive Feedback:** statements describing appropriate events
- **Negative Feedback:** statements describing inappropriate events

