Doctor Coach:
Teaching Clinical Skills

APPD Workshop
April 3, 2011
Our Coaching Team

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We have no financial interests to disclose
Today’s Coaching Plan

Doctor Coach Overview

Toolbox: Strategies and Tools

1. **Reflection** on the coaching relationship
   - Finding your inner coach

2. Observation and assessment: Planning for feedback

3. Purposeful questioning to discuss feedback
   - Planning a feedback dialog

4. **Goal setting**
   - Planning for your future coaching practice
The Future of Medical Education

“There is a need to motivate continuous learning and improvement across the whole arc of medical training.”

- Standardization and individualization
- Integration of formal learning with clinical experience (reflection on learning)
- Develop habits of inquiry and improvement
- Identity formation (educator)

(Cooke et al 2010)
Challenges in Teaching Clinical Skills: Problems with Published RAT/FD Curricula

• Most focus on teaching primarily critical thinking skills or procedures
• Many focus on one teaching setting such as rounds (important, but not globally applicable)
• Many focus only on select skills, such as delivering feedback, but not including:
  – preparing for it (assessment)
  – creating a dialog with the learner (self-assessment)
  – what to do with feedback (goal setting)
• Many are single 4-8h workshops
  – some with simulated learners, but few with integrated teaching practice in real learning environment
• **Minimal emphasis on teaching lifelong learning skills**
Beyond the Medical Literature:
How are skills taught in other disciplines?
Beyond the Medical Literature: Lessons Learned From Art

• Assigning meaning to observations
  – Art-based medical school curricula

• Systematic assessment

• Deconstructing expertise

• Deliberate practice
  – Self-assessment
Beyond the Medical Literature: Lessons Learned From Business

• Extensive **initial** assessment
• Developing benchmarks – individualized
• Goal setting
• Repeat measurements over time
Beyond the Medical Literature: Lessons Learned From Sports

Evidence based plus “expert opinion”

• Coaching relationship
• Individualized to meet athlete’s needs
• Extensive observation
• Frequent, progressive feedback
• Deliberate practice
• Motivation: effort, enthusiasm
Coaching Principals

- Focus on the relationship and dialog/interactions
- Each encounter is unique and thus coaching should be tailored to specific learner needs/circumstances
- Ultimate goal is for learner to develop the ability to coach him/herself – deliberate practice
- Similar coaching strategies across disciplines
  - WHAT the coach does
- Motivation is critical to improving effort
The Future of Medical Education

Shifting to a competency based medical education model requires:

“For faculty teachers an outcomes-based model that required coaching, feedback and repeated practice. . . would be labor intensive”

(Hodges 2010)
Is there a feasible “outcomes-based model that requires coaching, feedback and repeated practice”?
Doctor Coach Framework

Facilitated Practice

Assessment

Feedback

Goal Setting

Conversation

Observation

Preparation

Expectations

Systematic Synthesis

Evaluation

Deliberate practice

Independent practice

Guided practice

Modeling (mental practice)

Important
Specific
Measurable
Accountable
Realistic
Time-based

Discussion about Assessment: Ask-Tell-Ask
Resident as Coach Curriculum

- Views clinical coaching encounters as key learning experiences
- Didactics to consolidate those experiences:
  - **Reflective discussion**: opportunities to reflect on clinical coaching encounters
  - **Primers**: teach key principals of each task
  - **Tools**: help translate lessons into clinical coaching practice
  - **Goal Setting**: plan for future practice and implementation of coaching tasks
Longitudinal Coaching Practice

Tools introduced in didactics are integrated into clinical rotations

• Formal teaching rotations for PL3
  – Ward and clinic

• Rotations with some teaching expectations
  – Medical students, nurse practitioners or other residents

• In every patient encounter
  – Coaching patients about their disease
It is feasible, but is it effective?
Outcomes

• Longitudinal cross section study
• Resident Intervention – Resident-as-Coach Curriculum
• 3 year curriculum
  – Time 0 = Pre-curriculum (needs assessment)
  – Time 1 = After first year
  – Time 2 = After second year
  – Time 3 = After third year
• Evaluation:
  – Resident self-assessed use of coaching strategies
  – Student reported exposure to coaching strategies
  – Resident use of learning strategies
## Student Evaluation of Residents

<table>
<thead>
<tr>
<th>Item</th>
<th>Time 0</th>
<th>Time 1</th>
<th>Time 3</th>
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</thead>
<tbody>
<tr>
<td>Created a climate in which I felt comfortable</td>
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<tr>
<td>Provided supervision appropriate to my learning level</td>
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<tr>
<td>Asked questions for me to investigate and followed-up (p=0.006)</td>
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<tr>
<td>Gave me feedback regularly on my oral presentation skills (p=0.006)</td>
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<tr>
<td>Helped me elicit complete or focused histories (p=0.007)</td>
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<tr>
<td>Helped me perform accurate PE skills (p=0.023)</td>
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<tr>
<td>Gave me relevant feedback regularly on my PE skills (p=0.001)</td>
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</table>
Resident use of Learning Strategies

- Qualitatively, residents report improvement in their own learning skills.
- At time 3, most residents (92-100%) have at least tried all of the coaching strategies for their own learning.
- Subjective improvement in resident goal setting on longitudinal and rotation specific ILPs.
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Guided practice

Modeling (mental practice)

Important Specific Measurable Accountable Realistic Time-based

Discussion about Assessment: Ask-Tell-Ask

Important Specific Measurable Accountable Realistic Time-based

Discussion about Assessment: Ask-Tell-Ask

Important Specific Measurable Accountable Realistic Time-based

Discussion about Assessment: Ask-Tell-Ask
Coaching Relationship

Becky Blankenburg, MD, MPH
Lucile Packard Children’s Hospital, Stanford
Think About A Time When You Were Coached…
Think About A Time When You Coached Someone Else…
Learning Styles

What is your learning style?

- Visual-Spatial
- Linguistic
- Logical-Mathematical
- Bodily-Kinesthetic
- Musical
- Intrapersonal
- Interpersonal (Social)
- Naturalist

The types of learning styles vary widely and depend on which category is valued in one or more cultural settings.
Learning Styles

STEP 1: ASSEMBLE PART A TO PART B.  STEP 2: GLUE THESE PIECES SECURELY.  STEP 3: FIND PART C AND CONNECT TO PART D...
VARK

- **V**: Visual
- **A**: Aural
- **R**: Read-Write
- **K**: Kinesthetic

Free online assessment:
KOLB

Accommodating (Feel and Do)

Converging (Think and Do)

Diverging (Feel and Watch)

Assimilating (Think and Watch)
True Colors

what are your TRUE Colors?

Miscisin, Mary. http://www.truecolorstest.com
Pratt Teaching Inventory

- **Transmission**: substantial commitment to the content or subject matter
- **Apprenticeship**: process of enculturating students into a set of social norms and ways of working.
- **Developmental**: planned and conducted “from the learner’s point of view”.
- **Nurturing**: assumes that long-term, hard, persistent effort to achieve comes from the heart, as well as the head.
- **Social Reform**: seeks to change society in substantive ways.

Coaching Toolbox: Building a coaching relationship

• Create a mental image of a coach
• Relationship between coach and coachee is important
• Helpful to know one’s learning style and teaching perspective
• When teaching isn’t going according to plan, keep in mind that others might have a different learning style
Doctor Coach Framework

- Facilitated Practice
  - Modeling (mental practice)
  - Guided practice
  - Independent practice
  - Deliberate practice

- Assessment
  - Observation
  - Systematic Synthesis
  - Expectations

- Goal Setting
  - Important
  - Specific
  - Measurable
  - Accountable
  - Realistic
  - Time-based

- Feedback
  - Discussion about Assessment: Ask-Tell-Ask

- Preparation
  - Relationship
  - Evaluation
Are you a keen observer?
What’s your assessment?

Observational assessment requires the ability to focus on the appropriate details.
What is your assessment?
Let’s play ball!

http://www.youtube.com/user/dothetest
Yes, it is important to focus on the appropriate details. . .
But how do you know which details are important and which you can ignore?

Use a systematic approach *THEN* filter
– Ignore details only by deliberate choice

This principal applies to every aspect of medicine!
Systematic Radiograph Approach
How do you create an accurate medical assessment?

Systematic review of details

↓ (Deconstruct) ↓

Assign each detail meaning

↓ (Reconstruct) ↓

Integrate meaning from each part to create assessment
How do you create an accurate teaching assessment?

Systematic review of details

↓ (Deconstruct) ↓

Assign each detail meaning

↓ (Reconstruct) ↓

Integrate meaning from each part to create assessment
Assessment like practice involves deconstructing and reconstructing expertise.
Are you a keen observer?
Feedback Tool

Deconstruct:

1. Use a systematic approach (hence the checklist) to ensure that you observe each detail

2. Assign meaning to each: O, I, S
   • Omitted, needs improvement, satisfactory

Reconstruct:

3. Integrate meaning
   • S = reinforcing feedback
   • O or I = corrective feedback

4. Create assessment: plan your feedback
Why should you use a checklist?

Checklists have been shown to improve:

– Observational accuracy
– Comprehensiveness of observations

Feedback to learners is more:

– Objective (based on fact rather than feeling)
– More specific and detailed
Coaching Toolbox: Feedback Planning Tool

- Application of a systematic approach to deconstruct your observations about your learners performance

- Assessment through reconstructing the meaning of your observations
Doctor Coach Framework

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Assessment
- Observation

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- Conversation

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- Systematic Synthesis

Evaluation

Discussion about Assessment: Ask-Tell-Ask
“Purposeful Questioning”

Mark Vining, MD
Clinical Associate Professor of Pediatrics
University of Massachusetts Medical School
Associate Program Director, Pediatrics Residency
Question Types

Teacher knows the answer

Only the Learner knows the answer
The Teacher knows the answer

“Assertive”

Preceptor is testing the learner’s knowledge.

The Learner knows the answer

“Facilitative”

Preceptor is asking the learner’s perspective.
Question Types

Teacher knows the answer  Learner knows the answer

ASSERTIVE    SUGGESTIVE   COLLABORATIVE   FACILITATIVE
# Question Types

<table>
<thead>
<tr>
<th>Assertive</th>
<th>Suggestive</th>
<th>Collaborative</th>
<th>Facilitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gives direction</td>
<td>Suggests alternatives</td>
<td>Elicits student ideas</td>
<td>Elicits students feelings</td>
</tr>
<tr>
<td>Asks factual questions</td>
<td>Asks leading questions</td>
<td>Asks exploratory questions</td>
<td>Asks reflective questions</td>
</tr>
<tr>
<td>Provides information</td>
<td>Provides organizational structure</td>
<td>Allows the student to do the organizing</td>
<td>Only the learner knows the answers</td>
</tr>
<tr>
<td>What are the types of….</td>
<td>How can you categorize…..</td>
<td>What is your approach to….</td>
<td>What do you think/feel about…..</td>
</tr>
</tbody>
</table>

<table>
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<th>Teach problem-solving</th>
</tr>
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<tr>
<td>Interaction</td>
<td>Teacher leads learner down a preconceived path</td>
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<tr>
<td></td>
<td>Teaches thought processes, algorithms</td>
</tr>
<tr>
<td>Example</td>
<td><em>What are the common classes of medications for headaches?</em></td>
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<tr>
<td></td>
<td><em>What are the benefits/risks?</em></td>
</tr>
<tr>
<td></td>
<td><em>What do you know about this patient that would influence your medication choice?</em></td>
</tr>
<tr>
<td>Question use</td>
<td>Teaches problem solving without leading</td>
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<tr>
<td>-------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Interaction</td>
<td>Teacher implies: “There is a way (path) to think about this.”</td>
</tr>
<tr>
<td>Example</td>
<td>How do you decide what medication you would use to treat headaches? or What are the things you need to know to determine the choice of medication for headaches?</td>
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Suggestive versus Collaborating

• Both suggest that there is a framework for answering the question.
  • The more the learner is determining the framework, the more “collaborative” it is.
  • The more the coach is determining the framework, the more “suggestive” it is.
Question Types: Where to start?

• **Start at the more collaborative end.** (At least, I do.)
  *What’s your plan? Or What do you think is going on?*

• **If the learner seems confused, move to suggesting a path.** Make the path explicit.
  *How do you decide how to work up a child with a high BP?*

• **If the learner is still unsure, ask directive questions to make the path clear.**
  *Can you describe the types of medications used to treat high BP? When would you use each type?*
Coaching Toolbox: Purposeful Questioning

• No one question type is always better than another
• Choice of type depends on learner’s knowledge, situation, and teaching point.
  • A Suggestive question makes the path explicit.
  • A Collaborating question allows the learner to demonstrate s/he knows the path.
  • Both demonstrate a model that can be used other times.
• We all have a favorite style.
• Be aware of your style and when to alter it.
Example: intern presenting to ward resident, upon returning from ER to do an admission

- HPI: 6 yo with 24 hours fever, tachypnea; non-productive cough; right-sided pain with cough; no sick contacts;
- PMHx: Sickle cell disease (Hgb SS)
- PE: T: 38.5; O2 Sat 96%  
  – Decreased breath sounds
- Assessment: Pneumonia ("classic")
- Plan: CXR pending; IV abx ordered
What special considerations are important when evaluating a patient with Sickle cell disease who is febrile?

How is this febrile patient with decreased breath sounds different from one who doesn’t have SS disease?

What organisms do you specifically need to worry about in febrile patients with SS disease?

What do you think is important for us to teach the parents of patients with SS disease?
Small Groups

How can this framework be useful for feedback planning?
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Independent practice

Guided practice
Goal-setting using ISMART Plans

Su-Ting Li, MD, MPH
UC Davis
ISMART

- Important
- Specific
- Measurable
- Accountable
- Realistic
- Timeline

Important

- Goal must be important (relevant) to YOU.
  - How does this goal fit into your career plans?

- Prioritize achievement of goal.
  - When faced with competing demands, how will you prioritize achievement of this goal?
Specific

• Break broader goals into incremental steps.
  – “I want to improve my teaching.”
    • What specific aspect of teaching do you want to concentrate on first?
  – “I want to improve giving feedback.”
    • What specific aspect of feedback do you want to concentrate on first?
  – “I want to use collaborative questioning in my feedback to encourage learner self-reflection.”

• Plan how you will accomplish each incremental step.
Measurable

• Set a measurable outcome.
  – How will you/others know that this was accomplished?”
  – Can you answer – “did you do it?”
  • “I will use collaborative questioning at least once a week when I give feedback to a learner.”
Accountable

• Use a reminder and tracking system.
  – Build in external accountability.
    • Attendings, learners, colleagues
    • “I will tell my learners during orientation that my goal is to use collaborative questioning when I give feedback. I will ask the learner at the end of the week if I used collaborative questioning with them at least once.”

  – Establish internal accountability.
    • Checklist, diary
Realistic

• Create achievable goals.
  – “after every patient encounter”
  – Daily
  – Biweekly, weekly?

• Seek out and use available opportunities.
  – “when I am ward attending”

• Self-adjust your goal/strategies based on successes/barriers you encounter.
  – Mini PDSA cycles
Timeline

• Develop a timeline for achieving goal.
  – When do you expect to finish this?
  – When will you work on it?
    • “Next time I am ward attending. . .”

• Incorporate goal into your daily routine.
  – “I already give biweekly feedback – I will incorporate collaborative questioning in my Ask-Tell-Ask feedback routine.”
How I plan to incorporate collaborative questioning into my Ask-Tell-Ask feedback

- “What do you think you did particularly well this week?”
- “What do you want to continue to work on?”
- (I think the learner needs to improve their abdominal exam skills – missed hepatomegaly.) “How do you think your physical exam skills have been?”
- “What’s your plan for improving your abdominal exam skills? How can I help you?”
Example of an ISMART plan

**I:** I want to improve my teaching and my learner’s reflective skills by

**S:** incorporating more collaborative questioning into my feedback.

**M:** I will use collaborative questioning at least once when giving feedback to at least 1 learner.

**A:** I will tell my learners during orientation that my goal is to try to use collaborative questioning to elicit self-assessment during feedback and ask for feedback on whether I did it.

**R:** I will ask for feedback from 1 learner a week.

**T:** I will work on this goal when I am ward attending next week.
Coaching Toolbox:
Setting goals to plan for practice

- Planning for deliberate practice requires well defined goals
- Goals must fulfill a learning need and be important to the learner
- ISMART helps the:
  - Learner to define the goal components
  - Coach to know how best to target learning needs