Microteaching skills

Simple strategies for improving your teaching and evaluation skills in a busy clinical setting

March 21, 2012
Karyn L. Kassis, MD, MPH
Clinical Assistant Professor
Objectives

- Develop educational goals for learners at different levels using RIME model
- Understand how basic microteaching skills can be applied to your educational setting
- Utilize goal setting and microteaching skills as foundation for giving effective feedback
One minute brainstorm

- What makes an excellent clinical teacher?
Qualities of an excellent teacher

- ENTHUSIASM!
- Communication skills
- Knowledge
- Acts as role model
- Gives feedback
Planning to teach

- Every educational encounter should help the learner grow closer to their goal.
- A successful teacher is one who helps the learner set realistic goals and then gives feedback to modify path toward goal.
Microteaching - Simple steps

- Step 1
  - Planning/setting educational goals
- Step 2
  - Diagnose and teach the learner
- Step 3
  - Feedback/Reflection
Teaching Loop

Constructing Clinical Educational Encounters

Planning – Setting goals

- Goals can be for
  - A single patient encounter
  - A shift
  - A rotation
  - A residency/fellowship

- Goals can be modified
  - Level of learner
  - Type of residency program
Why set goals?

- A mind exercise
- Observe as many details of the next slide as you can in 10 seconds
Exercise

- How many children were in the photo?
- How many children were wearing glasses?
- What was in the foreground?
- What was the girl in the middle holding?
Set a goal first

- Look at the next picture for 10 seconds, but first set a few goals
- What is the name on the bike?
- What is the surface the bikes are on?
- Are both kids wearing helmets?
- What color is the girl’s dress?
Setting goals

- What is the name on the bike?
- What is the surface the bikes are on?
- Are both kids wearing helmets?
- What color is the girl’s dress?
Setting goals

- Gives structure to your encounter
- Improves your focus
Setting goals

- Setting goals with your learners
  - Gives structure to encounter
  - Gives framework for giving feedback
  - Allows for specific areas of focus
Setting goals for the medical learner

- Reporter
  - What is happening
- Interpreter
  - Why it is happening
- Manager
  - What happens next
- Educator
  - Self identifies gaps in own knowledge
Reporter

- Proficient History and Physical
- Able to identify basic problem
- Able to distinguish normal versus abnormal

- Expected level of learner?
  - 3rd year medical student
Interpreter

- All reporter skills AND
- Creates a realistic differential
- Prioritizes problems
- Follows up on results

- Expected level of learner?
  - Doc 1, interns
Manager

- All interpreter skills AND
- Selects appropriate diagnostic tests
- Customizes therapy for each patient

- Expected level of learner?
  - Senior residents
  - Junior fellows
Educator

- All Manager skills AND
- Identifies own knowledge gaps
- Plans continuing education
- Asks questions of preceptor
- Teaches students/peers

- Expected level of learner?
  - Senior fellows, late senior residents
RIME

- This is a flexible framework for educators
  - To help set goals with learners
  - To help teach learner at their level
  - To evaluate learners
- A learner may function at different levels depending on the task
- A fellow may perform as a educator for asthma, but as a reporter for a complex neurology problem
Putting it all together

- Welcome to your outpatient family practice rotation. What are your goals for today?
- Today I would like you to perform a new patient history and physical, present it to me in a concise, complete format, and construct a reasonable differential diagnosis with at least 3 diagnoses.
Questions?

- Any questions about the importance of setting goals with your learners?
Microteaching - Simple steps

- **Step 1**
  - Planning/setting educational goals

- **Step 2**
  - Diagnose and teach the learner

- **Step 3**
  - Feedback/Reflection
Step 2 – Teaching

- Typical outpatient encounter
  - Arrive
  - Start seeing patients
  - Present patient
  - Present assessment and plan
  - Execute plan
  - Reassess patient
  - Document/communicate plan to family
Step 2 – Teaching

- Your teaching goal is to meet each learner at their level and help them to take a step forward.
- You are familiar with basic levels of learner (RIME).
- Now how do you assess and move on?
- Microteaching skills
Microteaching

- Applying teaching strategies to short clinical encounters
- Derived from outpatient teaching encounters
- Flexible and effective
Microteaching

5 minute clinical encounter

- Case presentation
- Inquiry
- Teach

Irby, Presentation at OSUMC, 5/25/11
Microteaching

- Diagnose the patient
  - Case presentation
  - About half the encounter
  - Allow learner to present case
  - Actively listen
Microteaching

- Diagnose the learner
- Inquiry
  - Use One Minute Preceptor Model
  - Get a commitment
  - Probe for underlying reasoning
Microteaching

- Teach
  - Use One Minute Preceptor Model
  - Teach general rule
  - Provide positive feedback
  - Correct errors
Microteaching

- The One Minute Preceptor
  - Get a commitment
  - Probe for supporting evidence
  - Reinforce what was done well
  - Guidance on errors or omissions
  - Teach one brief general principle
  - Conclude with next steps
Intern Case Presentation

- 6 year old previously healthy female with 24 hours of fever to 103.8, chills, fatigue and decreased oral intake. Occasional coughing and seems to be breathing faster than usual. She has vomited 2 times in past 24 hours. No significant nasal congestion, no other GI or GU symptoms, no rashes. She is up to date on immunizations, including a flu shot this year.
Intern Case Presentation

- On physical exam she appears unwell, but not toxic. Not in significant respiratory distress. Temperature is 103.2, RR 32, HR 128, BP 96/52.
- HEENT unremarkable
- Lungs mild tachypnea, with mild retractions, no wheezing, faint crackles at right base
- Mild right upper quadrant tenderness to palpation
- CV normal, no rashes
The One Minute Preceptor

- Get a commitment
  - What do you think is going on?
  - What other diagnoses did you consider?
  - What is the next step you would like to take?
The One Minute Preceptor

- **Probe for supporting evidence**
  - Assess clinical reasoning
  - Lucky guess or informed choice
  - Why do you think the patient has pneumonia?
  - Why would you perform PFT’s in this patient?
The One Minute Preceptor

- **Reinforce what was done well**
  - Immediate feedback!
  - To improve, you have to know what you already do well
  - Your diagnosis of pneumonia seems well supported by the history and exam findings you presented
  - You picked up subtle crackles on a fussy child
The One Minute Preceptor

- **Give guidance on errors or omissions**
  - Identifies areas for possible improvement
  - While your diagnosis is correct, we do not routinely order PFT’s for children with pneumonia.
  - We should also obtain a room air pulse ox measurement
  - This child has significant increased work of breathing on exam. Let’s go back and look at the child together.
The One Minute Preceptor

- **Teach a general principle**
- In school aged children with community acquired pneumonia, we need to consider mycoplasma and strep pneumococcus, and in this age group, usually cover with both amoxicillin and azithromycin.
The One Minute Preceptor

- **Conclude encounter**
  - Ends the teaching
  - Clear next step for resident
  - Please order the CBC and blood culture, chest radiograph and pulse ox, and let me know how the patient is doing after the fever improves.
The One Minute Preceptor

- Provides structure for clinical interactions
- Flexible
- Can be time efficient with practice
- Does not need to occur every time
One Minute Preceptor

- Video 1
One Minute Preceptor

- Get a commitment
- Probe for supporting evidence
- Give immediate feedback on something good
- Give guidance on omission or error
- Teach one clinical pearl
- End encounter with plan for next step
Step 2 – Teaching

- How do you adjust teaching based on level of learner?
- How can you challenge the higher level learner?
- Using higher level questions!
Step 2 - Teaching

- Growing the Reporter (RIME)
- Explore basic knowledge
- Explore basic comprehension
- Suggest areas to increase content knowledge
- What are the most common causes of bacterial pneumonia in children?
Step 2 - Teaching

- Growing the Interpreter (RIME)
- Analysis
  - What do these lab values suggest?
  - How would you distinguish between viral and bacterial pneumonia?
Step 2 - Teaching

- Growing the Manager (RIIME)
- Synthesis
  - How would your differential change if the child was unimmunized?
  - How would you respond if family refused the administration of IV antibiotics?
Step 2 - Teaching

- Growing the Educator (RIME)
- Evaluation
  - What surprised you about this case?
  - Any areas of this disease you need to review?
Step 2 - Teaching

- Teaching the higher level learner begins to model coaching
- Focusing on smaller details of refinement
Microteaching - Simple steps

- Step 1
  - Planning/setting educational goals
- Step 2
  - Diagnose and teach the learner
- Step 3
  - Feedback/Reflection
Reflecting

- Ask questions to stimulate reflection
  - How did you feel your presentations were today?
  - What did you learn from seeing patients today?
  - What disease do you think you might read more about tonight?
Reflection

- Self-reflection can lead to natural feedback opportunities
- Tailor specific feedback based on learner’s performance that day
- Your presentations were very clear, and you differential diagnoses were well thought out. Tomorrow let’s focus on treatment options for common diseases.
Teaching Loop

Constructing Clinical Educational Encounters

Planning
Teaching
Reflecting

Growing learners

- Each teaching loop can build on itself
- Reflection and feedback lead to...
- Renewed planning and goal setting
- Higher level teaching
- Higher level reflection
The end

- Any comments, questions or concerns?
Thanks for your participation and attention!