HEY DOC, PAY ATTENTION TO ME:
TEACHING PATIENT-CENTERED EMR USE

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The ‘iPatient’

Culture Shock — Patient as Icon, Icon as Patient
Abraham Verghese, M.D.

On my first day as an attending physician in a new hospital, I found my house staff and students in the team room, a snug bunker filled with glowing monitors. Instead of sitting down to hear about the patients, I suggested we head out to see them. My team came willingly, though they probably felt that everything
Troubling Behaviors

- Back to Patient
- Poor eye contact
- Long silences
- Screen not visible to patient
- Typing during sensitive discussion
- Computer guided questioning

Best Practices

With a thoughtful approach, you can maintain your focus on the patient.

EHRs in the Exam Room: Tips on Patient-Centered Care
Aims

• Implement Patient-Centered EMR Curriculum
  • MS2 Students – Clinical Skills Course
  • Lecture and OSCE

• Evaluate Impact on Knowledge, Attitude & Skills
  • Improve knowledge, attitudes, skills
  • Rate topic as important to current & future practice

Lecture

• 1 hour lecture
• Reflection exercise
• Teaching Video: ‘What Not to Do’
  • Checklist: Barriers to patient-centered EMR use
• Background and Literature Review
• Why is this topic important?
Distracted Doctoring!

Lecture

- Best Practices
  - Key Skills and Behaviors
  - Pocket card: HUMAN LEVEL mnemonic
- Teaching Video 2: Ideal interaction
### Best Practices

**HUMAN**
- Honor ‘Golden Minute’
- Use ‘Triangle of Trust’
- Maximize Patient Interaction
- Acquaint w/chart
- Nix screen

**LEVEL**
- Let the patient look on
- Eye contact
- Value the Computer
- Explain what you’re doing
- Log Off

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### OSCE

- Required for all MS2s (n=88)
  - w/in 1 wk of lecture
- Group OSCE
  - 1 preceptor, 4 students
    - 1 student interacts w/SP
    - 3 student observers
  - 15min encounter; 10min feedback
  - Videotaped
OSCE

• Setting: Primary Care Clinic
• Objectives:
  • Log in/navigate EMR
  • Review chart, address CC
  • Use EMR to counsel on obesity
Evaluation Strategies

- Overall Curriculum
  - Surveys: Pre-Lecture and Post-OSCE
- OSCE
  - Feedback from self, SP, preceptor, peers
  - Evaluation tools
    - e-CEX
    - SP evaluation tool

Results

- Sample: MS2 class (n=88)*
  * Roughly 50% attend lectures
- Starting Cohort
  - Students who attended lecture
  - Pre-survey distributed to 45 students (39/45; 87%)
- Final Cohort
  - Students completed pre-lecture & post-OSCE surveys (33/39, 85%)
    - Paired analysis/ t test
  - SP Evaluations: 1 SP evaluated 22 students
Self Reported Training, Knowledge & Skills (n=33)

- Training (p < 0.001)
- Knowledge (p < 0.001)
- Skills (p < 0.001)

Importance to Clinical Practice (n=33)

- At Current level of training (p<0.001)
- As Future provider (p=0.04)
Required Training  
(n=33)

- Education & training should be required for all students

SP Evaluation  
(n= 22)

Student’s Ability to use EMR to  
Enhance Patient-Provider Communication

- Excellent: 65%
- Good: 30%
- Average: 5%
Limitations

- Low participation rate, partly due to class attendance
  - Future work: Does OSCE performance differ based on class attendance?
- Not observing actual clinical practice
- Not all students ‘actively’ participated in OSCE
- ‘Socially desirable response bias’

Conclusions

- Patient-centered EMR curriculum is innovative, timely and addresses gap in medical education
- Students report topic is:
  - Important to clinical practice
  - Should be required
- Training has potential to enhance patient-provider communication
Next Steps

- Analyze videos to rate actual performance
  - Code videos for skills, using e-CEX
- Adapt for wider range of users
  - Residents, Attendings, Allied Health Professionals
- Understand Patient Perspective
- Effect of inpatient mobile technology use

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  - Bucksbaum Institute
- Participating Students
Thank You!

Questions? For toolkit email: patient.centered.tech@gmail.com
Increase in Domain by # Students
(Pre-Lecture to Post-OSCE; n=33)

- Knowledge
- Skill
- Training

<table>
<thead>
<tr>
<th>Change in Pre-Lecture and Post-OSCE scores</th>
<th>No Change</th>
<th>Inc 1 pt</th>
<th>Inc 2+ pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students</td>
<td>4</td>
<td>18</td>
<td>19</td>
</tr>
</tbody>
</table>

Practice and Feedback

Importance of:
- Practice with SP
- Attending Observation
- Real Patient Feedback
- Not at all (1) to Extremely (5)
- p-values
  - <0.009 SP
  - <0.001 Attending
  - <0.003 Patient
### Timing of Training

<table>
<thead>
<tr>
<th>When to teach Patient-Centered EMR curriculum</th>
<th>Pre-Lecture (n=39)</th>
<th>Post-Lecture (n=45)</th>
<th>Post-OSCE (n=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During MS2 year</td>
<td>62%</td>
<td>78%</td>
<td>76%</td>
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<tr>
<td>During MS3 year</td>
<td>79%</td>
<td>78%</td>
<td>71%</td>
</tr>
<tr>
<td>During Intern year</td>
<td>44%</td>
<td>49%</td>
<td>49%</td>
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### Patient-Centered EMR Curriculum

**Kolb’s Experiential Learning Cycle**

- **Concrete Experience**
  - MS3 practice patient-centered technology use with patients in clinic and inpatient services & CPX

- **Active Experimentation**
  - MS2 OSCE on patient-centered technology use

- **Abstract Conceptualization**
  - MS2: lecture on patient-centered technology use

- **Reflective Observation**
  - MS2: reflective writing on personal experience with technology and medical care