Health Literacy Curriculum for Medical Students

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University of Chicago – Pritzker School of Medicine
Roundtable on Health Literacy 3
The Institute of Medicine
September 14, 2006
Outline

• Background on Pritzker curriculum
• Introduce the health literacy curriculum
• Outcomes of educational interventions
University of Chicago
Pritzker School of Medicine

• Traditional 2X2 four-year curriculum
  – 2 years of pre-clinical education
  – 2 years of clerkships

• Pre-clinical training
  – Biomedical knowledge (anatomy, histology, biochemistry, genetics, etc.)
  – Non-science courses
    • Clinical Skills (a.k.a. ICM, PoM, PPS…)
    • Ethics, Social Context of Medicine, etc.
Teaching Clinical Skills at Pritzker

• **MS1 year:**
  – Fall: Clinical Skills 1a
    • Communication skills, history taking, some physical exam
  – Spring: Clinical Skills 1c
    • Enhance history taking, written write-up, more physical exam

• **MS2 year:**
  – Winter and Spring: Clinical Skills 2
    • Physical exam, history taking, write-up, case presentation, clinical reasoning, advanced communication skills

• **MS3 year:**
  – Apprenticeship model primarily. Clerkship based content

• **End of MS3 year:**
  – Clinical Performance Experience (CPX)
  – Formative assessment of clinical skills
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Adult Education Themes

• Bloom’s Taxonomy
  – Knowledge/Skills/Attitudes

• Bruner’s Spiral Curriculum
  – “A curriculum as it develops should revisit this basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them”\(^1\)
  – “…As new knowledge and skills are introduced in subsequent lessons, they reinforce what is already learnt and become related to previously learned information.”\(^2\)

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MS1 Curriculum - Objectives

- **Knowledge**: Define health literacy. Know health literacy demographics. Know the impact of health literacy on health related outcomes. Recognize the clues to identify limited literacy in adult patients. Know question(s) to ask to assess patients’ literacy level.

- **Attitudes**: Respect health literacy as an important factor in health disparities. Recognize the need to screen for literacy level. Communicate with a ‘shame free’ method.

- **Skills**: Assess the literacy level of a standardized patient as a component of a complete videotaped simulated patient interview.
MS1 Curriculum

• Lecture period 1
  – Health literacy demographics.
  – Video: Harvard School of Public Health\(^1\)
    • “The video/DVD includes testimonials from adult learners about meeting literacy demands in health care settings. *In Plain Language* can be used as a starting point for courses, workshops or conferences addressing health communication issues.”
  – Skills training: how to assess literacy level
    • What questions can we ask?

\(^1\) http://www.hsph.harvard.edu/healthliteracy/overview.html#Two
MS1 Curriculum (cont.)

• Lecture Period 2
  – Patient with limited literacy brought to class to discuss her experience interfacing with the medical system
  – Brief physician interview
  – Question and answer session
  – Thank you certificate

• Simulated patient – practice history taking
  – Not low literacy, but instructed to ask about literacy as part of routine inquiry
MS2 Curriculum - Objectives

- **Knowledge**: Define health literacy and its impact. Know clues to limited literacy and how to assess patients’ literacy level. **Know the ‘Teach Back’ method.**

- **Attitudes**: Respect health literacy as an important factor in health disparities. Recognize the need to screen for literacy level. Communicate with a ‘shame free’ method.

- **Skills**: Use the ‘Teach Back’ method with a standardized patient trained to have limited literacy
MS2 Curriculum

• Lecture period
  – Review of health literacy demographics
  – Skills training: confirm patient’s understanding
    • The ‘Teach Back’ method of patient education
  – Video: AMA’s - “Help Your Patient’s Understand”¹
    • “The 2003 video, ‘Health Literacy: Help Your Patients Understand,’ gives more detailed techniques and specific steps for physicians and their staff on helping patients with limited health literacy.”

• Quiz – knowledge assessment

MS2 Simulated Patient Experience

- ‘Advanced Communications Topics’ module
- Students rotate in triads or quads through 5 different cases. One student interviews while others observe (15 minutes)
- Formative feedback (10 minutes)
  - Structured feedback (using a checklist) given by standardized patient, fellow students and a trained faculty member present
Health Literacy Case*

• Simulated patient presents w/breast complaint
• Student instructed to counsel patient on getting a mammogram
• Patient trained to have low health literacy, so has difficulty understanding the discussion unless explained clearly
  – Students instructed to practice ‘Teach back’

*Modified from a case developed at University of Colorado Health Sciences Center
**ACT #1: Health Literacy - Mammogram**

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<thead>
<tr>
<th>Student</th>
<th>Preceptor</th>
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**Did this student role play in the group (circle order):**
- 1st
- 2nd
- 3rd
- 4th
- 5th

**TO WHAT EXTENT IS THE STUDENT ABLE TO:**

1. Use words that the patient could understand?
   - Fails to 1
   - Expected performance for level of training
   - Skillfully

2. Demonstrate empathy for the patient?
   - Fails to 1
   - Expected performance for level of training
   - Skillfully

3. Explain clearly the patient's need for a mammogram?
   - Fails to 1
   - Expected performance for level of training
   - Skillfully

4. Describe clearly what a mammogram entails?
   - Fails to 1
   - Expected performance for level of training
   - Skillfully

5. Ask the patient to explain back student's explanations? (If student doesn't ask patient to 'Teach back', then have student perform this maneuver during feedback.)
   - Fails to 1
   - Expected performance for level of training
   - Skillfully
MS3 Curriculum - Objectives

• **Knowledge**: Know the specific components of the final step in the clinical encounter. (Closing the Encounter) Know the Teach Back method.

• **Attitudes**: Recognize the importance of health literacy when closing the encounter.

• **Skills**: Close the encounter with a patient in clinic with a faculty member observing. Effectively use the Teach Back method with a patient in outpatient clinic.
MS3 Curriculum

• **Self directed learning** during outpatient portion of the medicine clerkship (via Blackboard)
  – Read online case-based article
  – Review components of the final step of the clinical encounter: Closing the Encounter
  – Watch online video: Dr. Harper demonstrating how to Close the Encounter with a patient using the Teach Back Method
  – Quiz

• **Practice**: With a patient in clinic, student closes the encounter and uses the teach-back method.

• **Feedback**: Preceptor observes and gives formative feedback using a checklist
Health Literacy Folder

Course Documents
MS3_Health_Literacy_Handout.doc (86.5 Kb)
Read this document. It outlines the task you will complete during the outpatient portion of the clerkship.

Course Documents
Lethal_Cap.doc (76.5 Kb)
You must read this article from the journal Pediatrics, which gives a case-driven review of health literacy and the 'Teach Back' method that you will use in this clerkship exercise.

Course Documents
MS3_Closing_the_Encounter_with_Sample_Questions.doc (41.6 Kb)
You must review this document which outlines the steps in Closing the Encounter (Step 4 of the medical interview as you have learned it) and some sample questions at each point.
The Teach Back method is integrated into Step 4. You will be practicing Step 4 with one of the patients you see on your outpatient rotation.

Course Documents
Closing_the_Encounter_Literacy_Video.mov (8.744 Kb)
This movie shows Dr. Harper performing Step 4 with a patient and demonstrates the use of the Teach Back method. You must watch this move to prepare for your exercise with your patient.

Course Documents
OMG_CS_Closing_Encounter.pdf (32.833 Kb)
This is the feedback form that faculty will use to discuss your performance on Step 4. Remember, this is formative assessment: you are getting feedback in order to improve your performance the next time.

Course Documents
Health Literacy Lecture (3.75 Mb)
This is the lecture that Dr. Harper gave on Health Literacy. It reviews some of the facts and the skill of the teach back method. It is for your review if you desire.
b. Discuss patient’s expectations/goals for treatment.

c. Used the "Teach Back Method" for any new concepts (advice/test instructions/change in management):

   I. Explained/demonstrated the new concept
      A. Explained the rationale
      B. Provided complete instructions
      C. Explained likely benefits
      D. Explained likely side-effects

   II. Assessed patient’s recall and comprehension; asked patient to demonstrate.

   III. Clarified and tailored the explanation.

   IV. Re-assessed patient’s recall and comprehension; asked patient to demonstrate.

   V. Patient recalled and comprehended/demonstrated mastery.

Signatures

Student ____________________________  Faculty ____________________________

Date ____________________________  Date ____________________________

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Methods: Outcome Measures

1. In a self assessment, will students ascribe higher importance to health literacy issues, be more confident in using health literacy behaviors, and report higher use of these behaviors?

2. Can students successfully use health literacy skills (the Teach Back method) in an observed patient encounter?

3. During a summative standardized patient examination, will students use these behaviors more often with a patient with limited literacy?
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Methods – Health Literacy Survey

• Questionnaire (modified from Schillinger*) was administered to medical students at all class levels at the end of the each academic year beginning in 2004
  – Survey initially designed for patients
    • How often did your regular doctor use medical words that you did not understand?
    • How often did you have trouble understanding your doctor because he/she spoke too fast?
    • How often did your doctor give you enough time to say what you thought was important?
  – Survey rewritten for students to self-assess skills

Literacy Survey

Look at each statement below and indicate how important you feel it is that you perform these behaviors, how confident you are in your ability to execute them and how often you feel you currently do them.

1. always use medical words that patients understand?
2. speak slowly to ensure that the patient can register all of the words you say?
3. listen carefully to what he/she has to say?
4. give your patient enough information about his/her health problems?
5. make sure your patient understands his/her health problems?
6. explain to the patient why a test is being done?
7. explain how the test is performed?

Student ID

3592147876

○ MSI
○ MSII
○ MSIII
○ MSIV

The University of Chicago
Division of the Biological Sciences
and the Pritzker School of Medicine
Health Literacy Questionnaire

How important do you feel it is to:
Not Important Very Important

How confident are you in your ability to:
Not Confident Very Confident

How often would you estimate that you:
Never Always
Timeline of Curriculum and Assessment

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- ‘08: MS1 Curriculum → End of MS1
- ‘09: MS1 Curriculum
Baseline 2004 data MS1 vs. MS2

Prior to the curriculum
Mean scores shown for students completely filling out form

Importance     Confidence    Frequency
MS1 (n:25)     MS2 (n:76)
NS             NS             NS
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2005 - After the Curriculum
MS1s in 2004 (pre) vs. MS2s in 2005 (post)
Mean scores shown for students completely filling out form

*P<.05
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### Clinical Skills
#### Closing the Encounter

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<td>1.</td>
<td>Summarized data from clinic visit using language appropriate for patient (avoided and/or explained jargon).</td>
<td>![Done] ![Not Done] ![Not Necessary]</td>
</tr>
<tr>
<td>2.</td>
<td>Involved patient in health care decisions (to pt's desired extent): 1</td>
<td>![Done] ![Not Done] ![Not Necessary]</td>
</tr>
<tr>
<td>a.</td>
<td>Discussed importance of patient's role in treatment 1</td>
<td>![Done] ![Not Done] ![Not Necessary]</td>
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<tr>
<td>b.</td>
<td>Discussed patient's expectations/goals for treatment 1</td>
<td>![Done] ![Not Done] ![Not Necessary]</td>
</tr>
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<td>3.</td>
<td>Reached mutually agreeable plan.</td>
<td>![Done] ![Not Done] ![Not Necessary]</td>
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<tr>
<td>4.</td>
<td>Asked for other concerns or thoughts.</td>
<td>![Done] ![Not Done] ![Not Necessary]</td>
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<tr>
<td>5.</td>
<td>Discussed next step/follow-up</td>
<td>![Done] ![Not Done] ![Not Necessary]</td>
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<tr>
<td>6.</td>
<td>Signaled closure and thanked patient.</td>
<td>![Done] ![Not Done] ![Not Necessary]</td>
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**Comment:**

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**Date**


Student Performance on MS3 Exercise

% performing selected items on Closing the Encounter exercise (either done or N/A)

1. Summarized data
2a. Patient’s role
2b. Patient’s expectations?
2cIA. Explained rationale
2cIB. Provided instructions
2cIC. Explained benefits
2cID. Explained side effects
2cII. Asked patient to explain
2cIII. Tailored explanation
2cIV. Re-assessed
2cV. Patient understood
3. Reached agreeable plan
4. Asked for pt. concerns
5. Discussed next Steps
6. Thanked patient

*P<0.05
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Clinical Performance Experience (CPX)

- 12 rotations total
  - 6 sequential patient cases then a break
  - 2 more patient cases and then 4 ‘skills stations’ using simulators

- One of the cases in the morning: young married woman presents with acute abdominal pain (acute appendicitis vs. ectopic pregnancy)

- Case in the afternoon: student needs to deliver the bad news to the same patient that she likely has an ectopic pregnancy
  - Patient trained to have low health literacy but not revealed to students (Advice on training from leader at Literacy Chicago)
Assessment and Feedback

• Patient fills out a checklist of items and a patient perception questionnaire
• Student reviews feedback from the patient on his/her performance
• Students have a one-on-one faculty review and can discuss this case if they desire
1. The student appropriately set up the encounter with me.
2. The student asked about my perception of what's going on.
3. The student asked for my invitation to deliver the news.
4. The student told me that the pregnancy test was positive.
5. The student explained that I likely am suffering from an ectopic pregnancy.
6. The student explained why the ectopic pregnancy is causing my symptoms.
7. The student confirmed my understanding of what is going on using the teach-back method.
8. The student used a visual aid to describe the findings.
9. The student responded in some way to my emotions.
10. The student told me that I should go to the emergency room.
11. The student asked if I had any way to get to the emergency room.
12. The student asked if I had any questions.
13. The student asked a second time if I had questions.
14. The student said that the diagnosis is not completely certain.
Timeline of Curriculum and Assessment

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DBN/Literacy CPX Checklist

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CPX Performance – All Students

Percent of students using the Teach Back method during the health literacy/delivering bad news CPX case (Q7)

- 2005 (no curriculum)
- 2006

p: 0.14

Percent of students using the Teach Back method during the health literacy/delivering bad news CPX case (Q7)

p: 0.14
Conclusions

• Medical students feel that health literacy is an important issue
• This pilot data suggests that a curriculum directed at MS2s can have an impact on self-reported confidence and frequency of use of health literacy behaviors
• Students can successfully learn and use the teach back method with ‘real’ patients in clinic
• Implementing an integrated curriculum leads to a trend toward increased usage of health literacy behaviors
  – Further refinement of the curriculum will be done to improve outcomes
Implications

• Focus curricular efforts on knowledge, skills and (hopefully) change behavior
  – Spend less time on attitudes.

• While students can successfully demonstrate the ability to use the ‘teach back’ method, they did not identify the appropriate clinical situation to use this tool
  – The concept of ‘can’t tell by looking’ needs reinforcing

• Either we train staff/students/doctors to identify people at risk, or we encourage universal use of this method of patient education
  – Good evidence for use of the ‘Newest Vital Sign’?
Acknowledgements

• Sandy Cook, PhD
• Kris Slawinski M.S.
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• Krista Johnson, M.D.
• Mark Saathoff
• Debra Milton
Thank You!