Health Literacy: Evidence-based Best Practices Update

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Oregon and SW Washington Health Literacy Conference:
Better Communication, Greater Understanding
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Disclosure

I have no relevant financial relationships with commercial interests.
“The greatest problem with communication is the illusion it has occurred”

– Attributed to George Bernard Shaw
“Communication works for those who work at it”

– John Powell, composer
Learning objectives

- Identify the elements of clear communication as healthcare’s mandate for addressing low health literacy

- List and describe the top 5 health literacy best practices for clear spoken communication, including barriers and solutions to implementation in clinical environments

- Discuss the rationale for individuals using (and promoting at the health system level) a “universal precautions” approach to health communication
Overview

- Literacy and Health Literacy Brief Overview
- Clear Communication
- Top 5 best practices:
  - Universal Precautions for Health Communication
  - Spoken communication
    - Use plain language
    - Limit content
    - Elicit questions
    - Use teach back
  - Written communication (time permitting)
Literacy and Health Literacy: A Brief Review
National Assessment of Adult Literacy, 2003

(Kutner et al, 2005)
Literacy domains and examples of associated healthcare-related tasks

- **Oral Literacy**
  - Navigate a phone tree
  - Describe symptoms
  - Understand verbal instructions
  - Ask questions

- **Print Literacy**
  - Fill out forms
  - Understand consent forms
  - Understand prescription labels
  - Benefit from brochures
  - Keep appointments
  - Follow signage (navigate)
  - Correspond electronically

**Cultural & Conceptual Knowledge**
- Understand concepts:
  - Germ theory
  - Pharmacokinetics
  - Risk
  - Prevention
  - Chronic vs. acute
  - Acknowledge cultural differences
  - Navigate the “foreign” world of healthcare

Adapted from Neilsen-Bohlman et al, 2004
Active learning
<table>
<thead>
<tr>
<th>Fat</th>
<th>Fatigue</th>
<th>Allergic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flu</td>
<td>Pelvic</td>
<td>Menstrual</td>
</tr>
<tr>
<td>Pill</td>
<td>Jaundice</td>
<td>Testicle</td>
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<tr>
<td>Dose</td>
<td>Infection</td>
<td>Colitis</td>
</tr>
<tr>
<td>Eye</td>
<td>Exercise</td>
<td>Emergency</td>
</tr>
<tr>
<td>Stress</td>
<td>Behavior</td>
<td>Medication</td>
</tr>
<tr>
<td>Smear</td>
<td>Prescription</td>
<td>Occupation</td>
</tr>
<tr>
<td>Nerves</td>
<td>Notify</td>
<td>Sexually</td>
</tr>
<tr>
<td>Germs</td>
<td>Gallbladder</td>
<td>Alcoholism</td>
</tr>
<tr>
<td>Meals</td>
<td>Calories</td>
<td>Irritation</td>
</tr>
<tr>
<td>Disease</td>
<td>Depression</td>
<td>Constipation</td>
</tr>
<tr>
<td>Cancer</td>
<td>Miscarriage</td>
<td>Gonorrhea</td>
</tr>
<tr>
<td>Caffeine</td>
<td>Pregnancy</td>
<td>Inflammatory</td>
</tr>
<tr>
<td>Attack</td>
<td>Arthritis</td>
<td>Diabetes</td>
</tr>
<tr>
<td>Kidney</td>
<td>Nutrition</td>
<td>Hepatitis</td>
</tr>
<tr>
<td>Hormones</td>
<td>Menopause</td>
<td>Antibiotics</td>
</tr>
<tr>
<td>Herpes</td>
<td>Appendix</td>
<td>Diagnosis</td>
</tr>
<tr>
<td>Seizure</td>
<td>Abnormal</td>
<td>Potassium</td>
</tr>
<tr>
<td>Bowel</td>
<td>Syphilis</td>
<td>Anemia</td>
</tr>
<tr>
<td>Asthma</td>
<td>Hemorrhoids</td>
<td>Obesity</td>
</tr>
<tr>
<td>Rectal</td>
<td>Nausea</td>
<td>Osteoporosis</td>
</tr>
<tr>
<td>Incest</td>
<td>Directed</td>
<td>Impetigo</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th># correctly pronounced</th>
<th>Grade reading level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–18</td>
<td>≤3rd</td>
</tr>
<tr>
<td>19–44</td>
<td>4th–6th</td>
</tr>
<tr>
<td>45–60</td>
<td>7th–8th</td>
</tr>
<tr>
<td>61–66</td>
<td>≥9th</td>
</tr>
</tbody>
</table>

Source:
Reading ability vs. comprehension

In a study of adults with literacy below the 6th grade level:

71% correctly read the instruction to “take two tablets by mouth twice daily”

Only 35% could demonstrate the number of pills to actually take

(Davis et al, 2006)
Active learning
“Do not tlit the nemiceps dnoyeb the stimil. Eseht sgnittes lliw erusne the reporp tnemngila of the refsnart rod nihtiw the elpmas redloh. Siht lliw osla tneverp a ylwen–decudortni elpmas morf gnikaerb the derettacskcab nortcele rotceted”

What does it mean?

Why is it hard to understand?
"Do not tilt the specimen beyond the limits. These settings will ensure the proper alignment of the transfer rod within the sample holder. This will also prevent a newly-introduced sample from breaking the backscattered electron detector."

Literacy is “context specific”
Video
“Health Literacy”

The degree to which individuals have the capacity to obtain, process, communicate and understand basic health information and services needed to make health decisions

(Somers & Mahadevan, 2010)
Clear Communication
Health Literacy

Clear Communication

Adapted from Ruth Parker:
http://www.iom.edu/~media/Files/Activity%20Files/PublicHealth/HealthLiteracy/Parker.pdf
Clear communication

Written or spoken communication which helps patients to understand and act on health care information

(Pfizer Inc., 2004)

<table>
<thead>
<tr>
<th>Clear Communication is…</th>
<th>Usual Communication is…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plain language</td>
<td>Medical jargon</td>
</tr>
<tr>
<td>Simple messages</td>
<td>Complex messages</td>
</tr>
<tr>
<td>Need-to-know information</td>
<td>Nice-to-know information</td>
</tr>
<tr>
<td>Written at 5th–6th grade level</td>
<td>Written at 10th grade level or higher</td>
</tr>
<tr>
<td>Anticipates misunderstandings</td>
<td>Assumes understanding</td>
</tr>
<tr>
<td>Confirms understanding</td>
<td>Infers understanding</td>
</tr>
<tr>
<td>Shame–free</td>
<td>Inadvertently shaming</td>
</tr>
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</table>
Best Practices
Health care professionals often lack adequate knowledge about health literacy and the skills needed to address low health literacy among patients and their caregivers. Many promising practices for mitigating the effects of low health literacy are not used consistently. Improving health literacy training for health care professionals is an urgent priority.

See Appendix for list of 32 identified practices (Coleman, Hudson, & Maine, 2013)
Top 5 Best Practices

1. Practice “universal precautions” for health communication

2. Use plain non–jargon language to facilitate understanding

3. Limit information to 1–3 need–to–know items

4. Elicit questions in a patient–centered manner

5. Use “teach back” to confirm adequate communication

(Hudson, Pederson & Coleman, 2015 [poster])
1. Practice “universal precautions”

Problem:
- Low health literacy is ubiquitous
- Everyone is at risk
- Patients hide their low skills
- Health professionals can’t tell by looking
- Screening tools not appropriate

Solution:
- “Universal precautions” approach to health communication
- “Plain language” and “clear communication” for ALL PATIENTS

(DeWalt et al, 2010)
Patients hide their literacy problems

- “I forgot my glasses”
- “I’m not going to fill out another one of these stupid forms.”
- “I’ll read it with my husband when I get home.”

Over 60% have not told their spouse

(Parikh et al, 1996)
“Red flags”

- Forms incomplete or incorrectly filled out
- Non-adherence to medications
- Can’t name, medications, their purpose, or how taken
- Frequently missed appointments
- “I forgot my glasses”
- Anger

(AMA Foundation, 2007)
To screen or not to screen?

- Do not routinely screen for limited health literacy. Risks outweigh benefits.

(Paasche-Orlow & Wolf, 2008)
2. Use plain non-jargon language

- Even experienced clinicians use jargon terms
  (Castro et al, 2007)

- Research shows that all patients prefer simple health information
  (Kripalani & Weiss, 2006)
Active learning
### But jargon is complex!

<table>
<thead>
<tr>
<th>Type of Jargon</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical</strong></td>
<td>Words, phrases or concepts with meaning only in a clinical context</td>
<td><strong>Words</strong>: Glucometer, Cardiologist, Insomnia, Abdomen, Cath lab, Ortho</td>
</tr>
<tr>
<td><strong>Quantitative</strong></td>
<td>Words, phrases or concepts requiring clinical judgment or knowledge</td>
<td><strong>Words</strong>: Unlikely, Increased, Tablespoon, Fever</td>
</tr>
<tr>
<td><strong>Lay</strong></td>
<td>Words, phrases or concepts with two or more meanings or interpretations, one of which is medical</td>
<td><strong>Words</strong>: Stable, Abnormal, Stool, Frequency</td>
</tr>
</tbody>
</table>
Group activity
Listening for jargon
Video

https://www.studergroup.com/special/aidet-five-foundamentals-of-patient-communication-v
Jargon – bottom line

- You cannot know what will be jargon to any given patient in any given situation

- The **only** solution is:
  1. Use universal precautions, and
  2. Check for understanding (see “teach–back” later)
3. Limit information to 1–3 “need-to-know” items

- Patients typically retain < 50% of information
- Illness and stress are major barriers to learning

**TIP**

Focus on what they need to do, not on facts

(Kripalani & Weiss, 2006; Schwartzberg et al, 2007)
4. Elicit questions in a patient-centered manner

No: “Do you have any questions?”

- Implies that you expect them to “get it” (if they don’t, something must be wrong with them...)
- Patients do not answer this honestly

Yes: “What questions do you have?”

- Implies an expectation that patients should have questions!

(DeWalt et al, 2010)
5. Have I been clear? Use “teach back”!

Stop asking, “do you understand?”

- Implies that patients *should* understand (if they don’t, something must be wrong with them…)
- Patients respond with, “yes” even when they don’t

Start using a “Teach Back” or “show me” technique

- Ask patient to explain back what they are going to do.
- Say “I want to make sure I have explained things well. Please tell me in your own words how you are going to use this medicine.”
- Ask “how would you tell a friend to take this medicine?”
- “Show me how you use this inhaler.”

(Schillinger et al, 2003)
Research on “teach back”

- A “top safety practice”  
  (National Quality Forum, 2003)

- Use is associated with better glycemic control amongst diabetics  
  (Schillinger et al, 2003)

- Does not appear to take longer than standard care  
  (Schillinger et al, 2003; Kripalani & Weiss, 2006)

- Try it with the last patient of the day
Video

http://www.nchealthliteracy.org/teachingaids.html
Summary

- Follow universal precautions
- Use plain language
- Limit the amount of information
- Ask “what questions?”
- Confirm clarity with “teach back”
“Communication works for those who work at it”

– John Powell, composer
Discussion
Time Permitting...
Written communication best practices: 7 things you can do right now…
Guiding principles

- Reading is work; it takes energy and has a “cost”
- Appearance can determine whether a material is even attempted
- Persistence depends on:
  - Finding personal meaning and value
  - Readability & understandability
- Usefulness (utility) depends on how “actionable” the information is
1. Use Written Materials Wisely

- Use written materials only to reinforce spoken instruction
- Ask about learning preferences
- Always review written materials with patients/clients
- Highlight key passages

Evidence shows improved knowledge when appropriate written materials are used

(Berkman et al, 2011)
“Be careful about reading health books. You may die of a misprint.”

– Mark Twain
2. Identify the purpose

- Patients will look for personal meaningfulness and potential value before attempting to read a material.

- Clearly identify the purpose (or goals) of the material for yourself before writing starts
  - Helps avoid losing focus

- Match ALL content to these explicit goals
  - Helps limit distracting information

- Clearly state the purpose of the material up front
  - Helps people determine meaningfulness and potential value early
3. Focus on 1–3 key “need-to-know” items

- Patients typically retain < 50% of information
- Illness and stress are major barriers to learning

(TIP)

- Focus on what they need to do, not on facts

(Kripalani & Weiss, 2006; Schwartzberg et al, 2007)
The average US adult reads at an 8th grade level

Over 1500 studies show that health information is typically written well above the average reading level!

“Most patients will not understand the majority of the educational handouts, consent forms, medical–history questionnaires, and insurance papers they receive”

(Weiss & Coyne, 1997)

- Medline Plus “Easy-to-Read” health information:

- Online readability calculator:
  http://www.editcentral.com/gwt1/EditCentral.html
April 16, 2010

Dear __________

Your bloodwork is unremarkable without any signs to suggest parasitic infection, inflammation of blood vessels or other problems. I suspect your symptoms are functional in nature and not due to a specific disease process. I doubt that further testing would be productive. You may want to consider getting a second opinion and I would be happy to assist in arranging one. Please let me know if I can be of help in that regard.

Sincerely,

_____________, MD
April 16, 2010

Dear _________

Your bloodwork is unremarkable without any signs to suggest parasitic infection, inflammation of blood vessels or other problems. I suspect your symptoms are functional in nature and not due to a specific disease process. I doubt that further testing would be productive. You may want to consider getting a second opinion and I would be happy to assist in arranging one. Please let me know if I can be of help in that regard.

Sincerely,

___________, MD

Years of formal education Needed to easily understand this text = 10.8
systolic/diastolic

type 2 diabetes

hypertension

?  ?

morbidity

high BMI

risk factors
**A**

<table>
<thead>
<tr>
<th>word</th>
<th>synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>abdomen</td>
<td>stomach, stomach area, belly, tummy</td>
</tr>
<tr>
<td>ability</td>
<td>skill</td>
</tr>
<tr>
<td>abolish</td>
<td>end, do away with, get rid of</td>
</tr>
<tr>
<td>abrasion</td>
<td>cut, scratch, scrape</td>
</tr>
<tr>
<td>absenteeism</td>
<td>missing work or school</td>
</tr>
<tr>
<td>absorption</td>
<td>take in, soak up</td>
</tr>
<tr>
<td>accelerate</td>
<td>hurry, speed up, make worse, make more severe</td>
</tr>
<tr>
<td>accessible</td>
<td>available, on hand, understandable, usable</td>
</tr>
<tr>
<td></td>
<td>(handicapped)</td>
</tr>
<tr>
<td>accommodate</td>
<td>house, let stay with, give shelter, adjust, adapt</td>
</tr>
<tr>
<td>accompany</td>
<td>go with, take with (medicine)</td>
</tr>
<tr>
<td>accomplish</td>
<td>do, finish</td>
</tr>
<tr>
<td>accumulate</td>
<td>add up, gather, collect</td>
</tr>
<tr>
<td>accurate</td>
<td>true, right, correct</td>
</tr>
</tbody>
</table>
April 16, 2010

Dear __________

Your blood test was normal. I think your symptoms are not due to a specific disease. I do not think that more tests will help. You may want to get a “second opinion” from another doctor. I would be happy to help set that up. Please let me know if I can be of help with that.

Sincerely,

______________, MD
5. Invite the reader in

- Large font – 12 point or bigger
- Lot’s of white space
- Clear headings and subheadings
- Bullet points

Schoeffer, which he (Bergel) had heard confirmed in conversations with Mainz citizens; he had also seen some old tools prepared for the work by the originators which were still in existence. Gutenberg invented it in 1450. (xlii.) About 1561 Jan van Zuren (born at Haarlem in 1517) and Dirk Volkerts Coornhert (born at Amsterdam in 1522) established a printing-office at Haarlem. Of the former it is alleged that he had compiled a work on the invention of printing, which is presumed to have been lost during the siege of Haarlem in 1573. This work was not publicly mentioned before 1628, when Peter Scrivener published his Laeucrantz voor Laurens Coster, in which he says that he had only found the title, preface and introduction, in which Van Zuren contended that the first foundations of the art were laid at Haarlem, and that it afterwards accompanied a foreigner to Mainz. In this introduction he does not mention the name of the inventor, nor a date, but points in indefinite terms to the house of the inventor as still existing. (xlili.) In the same year (1561) Van Zuren and Coornhert published an edition of the Officia Ciceroonis, in which the latter, in a dedication to the magistracy of Haarlem, refers to the rumour that the art of printing books was invented first of all at Haarlem, and was brought to Mainz by an unfaithful servant and much improved there. He adds that very old
6. Select appropriate visual aids

(Weiss & Coyne, 1997; Barrett et al, 2008)
Web interfaces

FLU SEASON UPDATE

Vaccine Availability
As of today, Oct. 19, 2009, OHSU currently has seasonal flu vaccine available for children and adults. Please call your OHSU doctor’s office to schedule an appointment.

OHSU currently has a limited amount of H1N1 influenza vaccine available for children. Parents should call the office of their child’s doctor to make an appointment.
7. Write Explicit Instructions

2 tablets by mouth every morning and every evening for high blood pressure

(Sheridan et al, 2011)
References


References cont.


Schillinger D, Piette J, Grumbach K et al. Closing the loop. Physician communication with diabetic patients who have low health literacy. Arch Intern Med 2003;163:83–90
References cont.


Somers SA, Mahadevan R. Health literacy implications of the Affordable Care Act. Center for Health Care Strategies, Inc., November 2010

Weiss BD, Coyne C. Communicating with patients who cannot read. NEJM 1997;337(4):272–4