

Using language to promote health or How to address low health literacy

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Learning objectives

- To understand the **definition of health literacy** and how low health literacy relates to health
- To learn how to **assess for comprehension** of health information
- To **learn communication techniques** to support increased patient understanding of health conditions and disease self-management



Impact of low health literacy



When Mr. A comes in for his clinic visit for his high blood pressure, his blood pressure is still too high. The doctor had added a 3rd blood pressure medication at the last visit, and is frustrated that the blood pressure is not improved.

He asks “Are you doing everything we talked about at the last visit?” and “Are you taking the medications just the way it said in the handout that I gave you?” When Mr. A says “Yes”, the doctor decides to raise the dose of the 3rd medication.

He warns Mr. A that high blood pressure can “cause a myocardial infarction or a stroke” if it is not controlled. He writes the prescription and stands up. He asks Mr. A if he has any questions, and when Mr. A says no, he ends the visit.

What do you imagine is going on in Mr. A’s head during this encounter?



He's not sure what this is, or why it's a bad thing

He stopped taking the lisinopril because it made him cough. He stopped the diuretic because he had to urinate too often.

When Mr. A comes in for his clinic visit for his **high blood pressure**, his blood pressure is still too high. The doctor had added a **3rd blood pressure medication** at the last visit, and is **frustrated** that the blood pressure is not improved. He asks "Are you doing **everything we talked about** at the last visit?" and "Are you taking the medications **just the way it said in the handout**?" When Mr. A says Yes, the doctor decides to raise the dose of the 3rd medication. He warns Mr. A that high blood pressure can "cause a **myocardial infarction or a stroke**" if it is not controlled. He writes the prescription and **stands up**. He asks Mr. A if he has any questions, and when Mr. A says no, he ends the visit.

He can tell the doctor is irritated, and he doesn't want to disappoint him by telling him about the side effects

He's not sure what the doctor told him last time, but he's embarrassed to admit that. He didn't understand the handout.

He doesn't know what either of these terms mean

By standing up, the doctor signals that the visit is over. Mr. A doesn't feel comfortable asking any of the questions that are on his mind



There are so many opportunities for miscommunication in patient care



http://www.youtube.com/watch?v=cGtTZ_vxjyA

(23-minute video from the AMA demonstrating problems that arise for patients who have low health literacy, and what health care providers can do to help)



Definition and correlates of health literacy

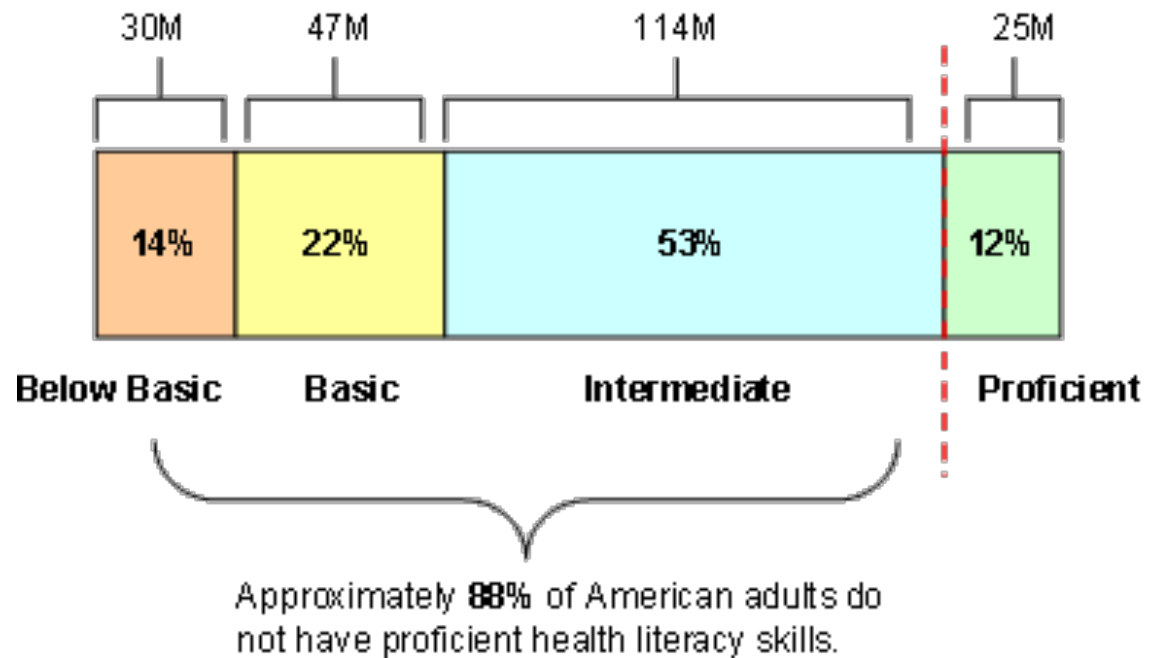


Health Literacy

Healthy People 2020 defines health literacy as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."



Percentage of Adults in Each Health Literacy Level (2003 NAAL)



How common is low health literacy?

Source: National Center for Education Statistics. 2006. The Health Literacy of America's Adults: Results From the 2003 National Assessment of Adult Literacy. Washington, DC: U.S. Department of Education.



Imagine that you are a 70 year old woman who lives alone and is able to read at about a third grade level. What would your experience be like if you were trying to follow directions to prepare for a colonoscopy?



What is a Colonoscopy?

A colonoscopy is an outpatient procedure in which the inside of the large intestine (colon and rectum) is examined. A colonoscopy is commonly used to evaluate gastrointestinal symptoms, such as rectal and intestinal bleeding, abdominal pain, or changes in bowel habits. Colonoscopies are also performed in individuals without symptoms to check for colorectal polyps or cancer. A screening colonoscopy is recommended for anyone 50 years of age and older, and for anyone with parents, siblings or children with a history of colorectal cancer or polyps.

What Happens Before a Colonoscopy?

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During a colonoscopy, an experienced physician uses a colonoscope (a long, flexible instrument about 1/2 inch in diameter) to view the lining of the colon. The colonoscope is inserted into the rectum and advanced through the large intestine. If necessary during a colonoscopy, small amounts of tissue can be removed for analysis (a biopsy) and polyps can be identified and entirely removed. In many cases, a colonoscopy allows accurate diagnosis and treatment of colorectal problems without the need for a major operation.



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This text, taken from actual colonoscopy instructions, has a reading level appropriate for a college student (grade 12.5) <http://www.readability-score.com/>

- What would you think was the purpose of the test?
- What challenges would be involved in obtaining and using the prep medications?
- What would you be expecting and fearing about the test?
- What would your experience be like in the office for the actual test?
- How would you feel about having undergone the test after it was over?



Who is likely to have low health literacy?

Characteristic	Percent in <i>Below Basic</i> population	Percent in total population
Did not graduate from high school	51	15
Did not speak English before starting school	39	13
Adults reporting poor health	10	4
Hispanic adults	35	12
Age 65+	31	15
No medical insurance	36	18
Did not obtain health information over the Internet ¹	80	43
Black adults	19	12
One or more disabilities ²	48	30

Source: National Center for Education Statistics (2006)



Medications are particularly challenging for people with low health literacy



Many studies have shown that our patients do not understand the purpose of their medications or how to take them effectively

For instance, although 71% of patients can correctly state that a label says to take 2 tablets twice a day...

Only 35% can demonstrate the correct # of pills to be taken daily.



Former U.S. Surgeon General Richard Carmona, M.D. emphasized the importance of health literacy

- "The health of our country depends on our understanding of basic health information in order to lead a healthy life."
- "Healthcare professionals do not recognize that patients do not understand the health information we are trying to communicate."
- "Health literacy can save lives, save money, and improve the health and well-being of millions of Americans."



Patients with inadequate health literacy :

- Have difficulty taking medications appropriately
- Have **higher rates of hospitalization**, emergency care visits and lower rates of flu immunizations
- Have less health knowledge and comprehension
- Are more likely to report their health as poor
- In particular, seniors' limited health literacy is associated with worse health status, quality of life and early mortality



How to assess for comprehension



How can you assess a patient's level of health literacy?

- You can ask
- You can test
- You can ask the patient to demonstrate
- What are some potential problems with each of these methods?



Asking patients about literacy

- What are some words you might use to ask your patient about his/her reading abilities?



Ask the patient to **demonstrate** reading ability

- Functional reading ability is probably more important than abstract ability
- You can ask a patient to perform a task that involves reading in order to learn whether reading ability is a barrier
- For instance, you can ask a patient to read a label on a medication bottle and show you how s/he would take the medication



“Health literacy” isn’t just the patient’s problem

- We are responsible for improving our communication abilities
- With practice, we too can become “health literate”!
- Remember that patients who have low health literacy may
 - Be fully literate in other domains
 - Be highly intelligent



Common pitfalls in care of patients with limited health literacy ¹

- Assuming your explanation is simple. Remember, what's easy for you is... easy for you!
- Using jargon (sometimes to hide the fact that we don't know exactly what we are talking about, or to assert our authority). A study found physicians use an average of 4 terms per encounter that were not understood by the patient
- Failing to be specific; e.g. “get a fasting cholesterol test”
- Overwhelming patients with too much information
- Failing to assess patient understanding and assess their beliefs about their illness

1. King, McGraw Hill/Lange 2007

2. Castro, Am J Health Behav 2007



How to communicate in a way that
promotes patient understanding



How can you promote effective communication?

- **Avoid the use of technical or medical terminology.** E.g. *pandemic, immunize, transmit, influenza, and prevalence*. Even common words such as *risk* or *risk factor* can cause confusion
- **Offer more than one means of communication.** A combination of spoken + other types may perform best
- **Focus on actions rather than information.** Too often we focus primarily on what we want the audience to know and not on what they should do.
- **Stay tuned in to cultural differences.** Differences in language and word meanings can lead to misinterpretation and poor understanding. Can you think of examples?

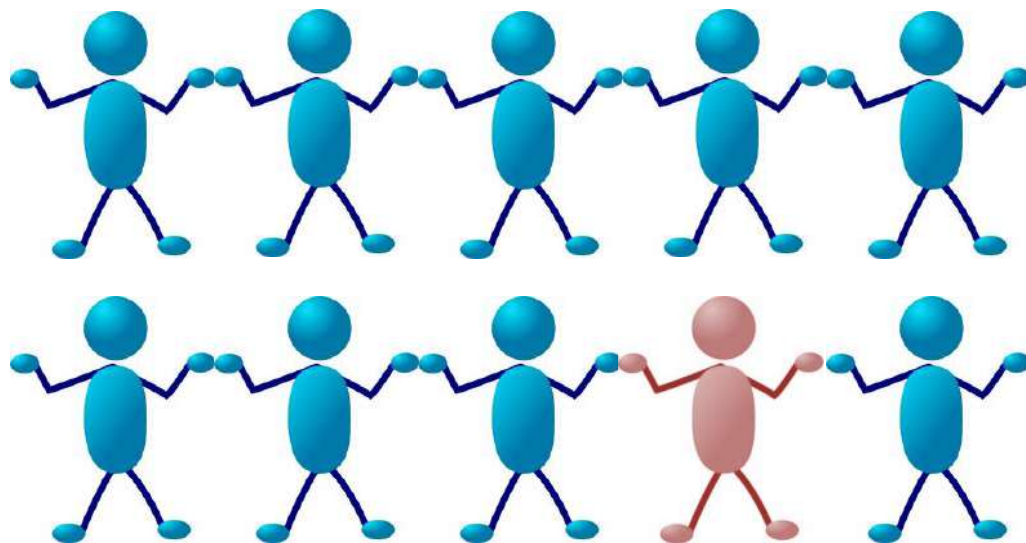


Plain language in written materials

- Use familiar language in an active voice
- Place important information first
- "Chunk" similar information; use bullet points
- Present information so the higher number is better
- Use "icon arrays" for numerical information
- Website with tools for designing print material that is more accessible:

<http://www.idph.state.ia.us/PlainAndSimple/> 2020





“90% of people who choose this kind of treatment get rid of their cancer completely”



Keep communication meaningful

- Provide interpretive framing
- Explain the concept of chronic disease
- Explain the purpose of tests, and the meaning of the results



Keep communication meaningful

- Provide interpretive framing
 - E.g. “We need this test so we can see if your heart is still pumping well after your heart attack. If it isn’t, there are things we can do to help it.”
- Explain the concept of chronic disease
 - E.g. “We don’t know how to cure your arthritis. We can help you have less pain, though. And we can help you to keep doing the things you like to do, like playing ball with your granddaughter.”
- Explain the purpose of tests, and the meaning of the results
 - E.g. “When the doctor said the test result was “positive for syphilis,” she meant that you have an infection with syphilis. This is helpful information, because now you can take medicine that can get rid of the infection”



Keep communication simple

- Use simple words and common, non-technical terminology
 - “Heart attack”, not Myocardial Infarction or MI
 - “the cancer has spread” not metastasized
- Be specific about the steps that are needed to accomplish a task. How would you talk with a patient about the need to eat less salt?



“I suggest you eat less salt. Are you willing to try it?”

Some ways that you can do this are to eat less chips, salted crackers, and canned soup. Do any of these seem like things you would be willing to do?

How could you cut down on salt in your cooking? Some things I have tried are when I cook, I add half as much salt as a recipe calls for, and try to let myself get used to the taste of less salty food. Do you think you would be willing to try that?

If you use canned foods, look for a label that says “low salt” or “low sodium”. People usually get used to the taste of low-salt food after a couple of weeks. Do you think that would be worth a try?”



Focus on specific action steps



- Slow down
- Negotiate priorities
- Limit the goals for each encounter



Create shared short and long-term goals



What are some examples for high blood pressure?

- Short term goals might include the patient understanding the fact that a high-salt diet makes medicines for high blood pressure less effective
- Longer term goals might include decreasing dietary salt intake and controlling blood pressure within a certain range
- End goals might include avoiding stroke or renal problems, and continuing to live independently



Confirm comprehension

Don't ask: "Do you understand?"

- Do: Ask patients to repeat back to you how they are going to take a medication or why you are ordering a test.
 - "I want to be sure I explained this well enough. Would you mind telling me the purpose of cutting down on salt in your diet? And what are some ways you can cut down on salt?"



Elicit questions, anticipate barriers

- “What questions do you have?” (not “Do you have any questions?”)
- “How do you feel about the plan to cut down on salt?”
- “What part of this plan is going to be hard to carry out?”



What's the bottom line?



Health literacy and Social Justice

- Health systems that are difficult to navigate for patients with low health literacy create disparities in access and inequities in access to health
- We can change our language and the health education that we provide in order to allow equitable access to care



References

- Berkman N, et al. 2011. Low health literacy and health outcomes: an updated systematic review. *Annals Int Med*, 97-107.
- Castro C., et al. 2007. Babel babble: Physicians' use of unclarified medical jargon with patients. *Am J Health Behav*, S85-S95.
- Coleman C, et al. 2011. Teaching health care professionals about health literacy: a review of the literature. *Nursing Outlook*, 70-78.
- Davis T. et al. 2006. Literacy and misunderstanding prescription drug labels. *Annals Int Med* 887-894.
- King T., Wheeler M. Medical management of vulnerable and underserved patients. McGraw-Hill Medical Publishing Division 2007.
- Paasche-Orlow et al, Health Literacy and Power. *Health Lit Res Pract*, 2018.
- Schenker Y., et al. 2010. Interventions to improve patient comprehension in informed consent for medical and surgical procedures: a systematic review. *Medical Decision Making*, 151-173.
- Sheridan S et al. 2011. Interventions for individuals with low health literacy: a systematic review. *J Health Communication*, 30-54.
- <http://www.cdc.gov/healthliteracy/>



Skill building

- Divide up into your clinic site teams
- Start with each team member spending 5-7 minutes writing their own version of a patient handout on tips for healthy eating and cooking
- Share your versions and provide constructive feedback
- Make sure that all team members get time to give their input
- If you have time, develop a unified version

Alternate exercise:

Divide into small groups. Take a paragraph from the instructions on the next slide, and rewrite it so that the elderly patient with a 3rd grade education can feel comfortable that she understands it. Then trade paragraphs with another group, and critique each others' work.

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