Health Literacy

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Annual Preceptors Conference

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Objectives

• Define pharmacy health literacy
• Identify factors associated with non-adequate health literacy
• Give examples where health literacy affects patient’s medication safety
• List health literacy tools available to pharmacists
• Review communication strategies with non-adequate health literacy patients

Health Literacy Definition
What is Pharmacy Health Literacy

- Pharmacy health literacy is the degree to which individuals are able to obtain, process, and understand basic health and medication information and pharmacy services needed to make appropriate health decisions.
- Only 12% of adults have proficient health literacy (e.g., can interpret the prescription label correctly)

Health Literacy in America: Results from the NAAL

<table>
<thead>
<tr>
<th>Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficient</td>
<td>12%</td>
</tr>
<tr>
<td>Intermediate</td>
<td>53%</td>
</tr>
<tr>
<td>Basic</td>
<td>22%</td>
</tr>
<tr>
<td>Below Basic</td>
<td>14%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Kutner et al. 2006

Health Literacy Video

http://www.acpfoundation.org/hl/hlresources.htm
(6 minutes and 30 seconds)
Factors Associated with Non-Adequate Health Literacy

- Non-adequate health literacy is more prevalent among:
  - Older adults
  - Minority populations
  - Immigrants
  - Those who have non-adequate socioeconomic status
  - Medically underserved people
  - Persons with limited education

Functional Literacy of High Risk Populations

<table>
<thead>
<tr>
<th>Group</th>
<th>Low Literacy (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>50</td>
</tr>
<tr>
<td>Elderly (≥ 65)</td>
<td>81</td>
</tr>
<tr>
<td>Racial/Ethnic group:</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>41</td>
</tr>
<tr>
<td>Black</td>
<td>77</td>
</tr>
<tr>
<td>Hispanic</td>
<td>78</td>
</tr>
<tr>
<td>Education level:</td>
<td></td>
</tr>
<tr>
<td>0-8 yrs</td>
<td>96</td>
</tr>
<tr>
<td>9-12 yrs</td>
<td>81</td>
</tr>
<tr>
<td>HS/GED</td>
<td>55</td>
</tr>
<tr>
<td>Immigrants:</td>
<td></td>
</tr>
<tr>
<td>0-8 yrs prior educ</td>
<td>91</td>
</tr>
<tr>
<td>9+ yrs prior educ</td>
<td>71</td>
</tr>
</tbody>
</table>

(Adapted from Table 2-1)
Possible Indicators of Non-Adequate Health Literacy

- Excuses: (e.g., “I forgot my glasses”)
- Seldom ask questions
- Questions are basic in nature
- Difficulty explaining how they take meds
- Lack of follow-through with tests/appts


How Health Literacy Affects Medication Safety (Examples)

- Low Literacy and Medication Use
  - Ability to identify their own medications
    12-18 x greater odds
  - Understanding of how to take medications
    Take med every 6 hrs 52% correct
    Take med on empty stomach 46% correct
  - Understanding of drug mechanisms and side effects
    WARFARIN works by thinning blood 70% correct
    BLEEDING/bruising most common SE 49% correct
  - Misinterpretation of common warning labels
    3-4 x more likely to misinterpret

Health Literacy and Medication Use

- Understanding of numerical information
  If your blood test result for warfarin is just right when it is between 2.0 and 3.0, which of the following results would be "just right"?
  29% correct

- Medication adherence
- Adverse drug events (?)
- Health care costs

UCSD SSPPS Studies of Health Literacy on Medication Safety

- The effect of health literacy on medication safety in the elderly
  432 patients in 6 primary care physician clinics (Kuo)
- The relationship between inappropriate medication prescribing and health literacy levels in elderly patients
  Secondary analysis of the previous study (Chen and Kuo)
- Effect of functional health literacy on medication use
  83 patients from 3 hospital outpatient pharmacies (Backes and Kuo)
- Understanding functional health literacy and its effects on medication use in the underserved population
  101 underserved patients (Tsai, Lorentz, and Kuo)
- Health literacy and medication safety in Chinese American patients
  151 patients from an internal medicine clinic (Qin, Yu, Chen, Mehta, Smith, and Kuo)

Why is Health Literacy Important to Pharmacy?

- Pharmacists are responsible for making sure patients obtain the maximum positive health outcomes from their medications
- Medication errors are likely higher with patients with limited health literacy
- Studies document an association between low literacy and poor health outcomes
- Pharmacists are one of the most accessible health care providers
- Addressing literacy is an important quality improvement effort
Health Literacy Tools

http://pharmacyhealthliteracy.ahrq.gov/Sites/PharmHealthLiteracy/

1. Health literacy instruments
   a. Rapid Estimate of Adult Literacy in Medicine revised. Shorter version (REALM-R)
   b. Test of Functional Health Literacy in Adults (TOFHLA and S-TOFHLA)

2. Ask-Me-3 campaign or the Indian Health Service Patient Counseling technique

3. AHRQ Health Literacy Tools
   a. Pharmacy health literacy assessment tool & user’s guide
   b. Training program for pharmacy staff on communication
   c. Guide on how to create a pill card
   d. Telephone reminder tool to help refill medicines on time

Health Literacy Tools

• Ask Me 3
  – What is my main problem?
  – What do I need to do?
  – Why is it important for me to do this?

• Indian Health Service Technique
  – What is the medication for?
  – How do you take the medication?
  – What should you expect from this medication?
Pharmacy Health Literacy Assessment Tool

http://pharmacyhealthliteracy.ahrq.gov/Sites/PharmHealthLiteracy/

Pharmacy Health Literacy Assessment Tool Domains

• Promotion of services
  – How well the pharmacy tells patients about its services

• Print materials
  – Accessibility of the print materials (leaflets, warning labels, bottle labels, inserts, brochures, posters)

• Clear verbal communication
  – Communication between pharmacy staff and patients (through direct observation)

• Retrieved from:

Pharmacy Health Literacy Assessment Sample Questions (I)

Question: Clear signs and symbols direct people from the building entrance to the pharmacy.

1. The pharmacy does not appear to be doing.
2. The pharmacy is doing but could make improvements.
3. The pharmacy is doing this well
4. N/A
Pharmacy Health Literacy Assessment Sample Questions (I)

Question: The pharmacy uses a variety of ways to inform patients about its services within the physical structure of the pharmacy: video and/or computer, as well as printed materials.

1. The pharmacy does not appear to be doing.
2. The pharmacy is doing but could make improvements.
3. The pharmacy is doing this well
4. N/A

Pharmacy Health Literacy Assessment Sample Questions (II)

Question: The prescription information leaflets that the pharmacist prints out are written in simple and clear language, avoiding the use of technical jargon and medical terms.

1. The pharmacy does not appear to be doing.
2. The pharmacy is doing but could make improvements.
3. The pharmacy is doing this well
4. N/A

Pharmacy Health Literacy Assessment Sample Questions (II)

Question: The pharmacy uses visual graphics or illustrations in the prescription information leaflets.

1. The pharmacy does not appear to be doing.
2. The pharmacy is doing but could make improvements.
3. The pharmacy is doing this well
4. N/A
Pharmacy Health Literacy Assessment Sample Questions (III)

**Question:** Pharmacy staff avoid using medical jargon when they communicate verbally with patients.

1. The pharmacy does not appear to be doing.
2. The pharmacy is doing but could make improvements.
3. The pharmacy is doing this well
4. N/A

Pharmacy Health Literacy Assessment Sample Questions (III)

**Question:** The pharmacy offers and provides interpreters to patients for whom English is a second language.

1. The pharmacy does not appear to be doing.
2. The pharmacy is doing but could make improvements.
3. The pharmacy is doing this well
4. N/A

Communication Strategies

http://pharmacyhealthliteracy.ahrq.gov/Sites/PharmHealthLiteracy/
Training program for pharmacy staff on communication

• The program is intended for pharmacy staff members.
• The training program:
  – Introduces pharmacists, pharmacy technicians, and other pharmacy staff to the problem of low health literacy.
  – Identifies implications of the problem.
  – Explains techniques for pharmacy staff members to improve communication with patients who may have limited health literacy skills.

http://www.ahrq.gov/qual/pharmaclit/pharmtrain2.html#agenda

Recommended Strategies to Improve Communication

1. Explain things clearly in plain language
2. Focus on key messages and repeat
3. Use a “teach back” or “show me” technique to check understanding
4. Effectively solicit questions
5. Use patient-friendly educational materials to enhance interaction


1. Explain Things Clearly in Plain Language

• Slow down the pace of your speech
• Use plain, non-medical language
  – “Blood pressure pill” instead of “antihypertensive”
  – Pay attention to patient’s own terms and use them back
• Avoid vague terms
  – “Take 1 hour before you eat breakfast” instead of “Take on an empty stomach”
Using Plain Language: What could we say instead of…

- Adverse reaction → Side effect
- Hypoglycemia → Low sugar
- PRN → When you need it
- Suppository → Pill that goes in your bottom/behind
- Topical → On skin

2. Focus on Key Messages and Repeat

- Limit information
  - Focus on 1-3 key points
- Develop short explanations for common medical conditions and side effects
- Discuss specific behaviors rather than general concepts
  - What the patient needs to do
- Review each point at the end

3. Use a “Teach Back” to Check Understanding
Teach Back Scripts

- I want to make sure I explained everything clearly. If you were trying to explain to your husband how to take this medicine, what would you say?
- Let’s review the main side effects of this new medicine. What are the 2 things that I asked you to watch out for?
- Show me how you would use this inhaler.

4. Effectively Solicit Questions

- Don’t say:
  – Do you have any questions?
  – Any questions?
- Instead say:
  
  What questions do you have?

5. Patient-Friendly Materials

- Appropriate Content
- Plain Language
- Layout
- Illustrations
Create a Pill Card

http://pharmacyhealthliteracy.ahrq.gov/Sites/PharmHealthLiteracy/

Step 1: Start with a Blank Pill Card

<table>
<thead>
<tr>
<th>Time</th>
<th>Used for</th>
<th>Instructions</th>
<th>Morning</th>
<th>Afternoon</th>
<th>Evening</th>
<th>Night</th>
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Step 2: Enter Patient Information

Step 3: Fill in Medicine Information
Step 4: Add Pictures of the Medicine

Image Templates
Common pill shapes

Common Images for Medication Uses

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