Overcoming the Impact of Disparities and Low Health Literacy on Patient Care

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- Michael Miller has received an honorarium from Abt Associates for serving on an AHRQ Faculty Advisory Panel for Advancing Health Literacy Practices through Quality Improvement: Curricular Modules for Faculty. No other conflicts of interest, real or apparent, and no financial interests in any company, product, or service mentioned in this program, including grants, employment, gifts, stock holdings, and honoraria are declared.”

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Learning Objectives

• Describe the concept of health literacy and variations in federally recognized priority population subgroups in the United States.

• State a conceptual framework and provide examples for how low health literacy may contribute to suboptimal health outcomes in diverse population subgroups.

• List practical literacy-based tools and interventions that can be translated for use in diverse population subgroups in pharmacy settings.

• Discuss opportunities to integrate and evaluate health literacy principles in pharmacy practice settings.
Please note your answer to the self-assessment question on a piece of paper. The questions and answers will be reviewed at the completion of the program.

Which of the following tasks would require an intermediate level of health literacy?

a. Identify what is permissible to drink before a medical test, based on a short set of instructions
b. Explain why it is difficult for people to know if they have a chronic medical condition, based on information in a one-page article
c. Identify three substances that may interact with an OTC drug to cause a side effect, using information on the OTC drug label.
d. Calculate an employee’s share of health insurance costs for a year, using a table that shows how the employee’s monthly cost varies depending on income and family size.
At what reading level are most medication labels and guides written?

a. 5\textsuperscript{th} grade  
b. 8\textsuperscript{th} grade  
c. 11\textsuperscript{th} grade  
d. College level
Which of the following statements is true?

a. All pharmacy patients should be asked to complete a health literacy assessment before speaking with a pharmacist

b. The “teach back” method is designed to assist patients with visual learning styles

c. Socioeconomic status is directly and consistently correlated with medication adherence

d. Poor adherence to recommended self care is suggestive of limited health literacy
Which of the following practical patient-level interventions can be used to help ensure literacy-sensitive communication?

a. Teach to goal by confirming patient understanding using the teach-back method.

b. Reinforce verbal communication with visual information.

c. Ask patients if they have any questions.

d. Both (a.) and (b.) are correct.
All of the following are considered literacy-sensitive communication techniques you can use with patients EXCEPT:

a. Emphasizing a minimum of 5-7 key points.
b. Using the “teach back” or “show me” method.
d. Encouraging questions using an open-ended approach.
Health Literacy is..

“…the constellation of skills, including the ability to perform basic reading and numerical tasks required to function in the health care environment.”

Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs, AMA, 1999

“…the ability to understand and use health-related printed information in daily activities at home, at work, and in the community to achieve one's goals and to develop one's knowledge and potential”

National Assessment of Adult Literacy, 2006
Components of Health Literacy

- Cultural Knowledge
- Conceptual Knowledge
- Numeracy Skills
- Listening Skills
- Reading Skills
- Speaking Skills
- Writing Skills
The Health Literacy of America’s Adults. Results from the 2003 National Assessment of Adult Literacy. 2006.
Conceptually Speaking

- Oral and print literacy mediate the individual capacity (competence and prior knowledge) to translate health information into new knowledge, attitudes, self-efficacy, behavior change and improved health outcomes.

- Complexity and difficulty of written and spoken messages, culture/norms, patient background, and other barriers to change influence this process.

Conceptual Framework of Health Literacy

INDIVIDUAL CAPACITY

Reading Fluency
- Prose
- Quantitative
- Document

Prior Knowledge
- Vocabulary
- Conceptual knowledge of health and healthcare

HEALTH-RELATED PRINT LITERACY
Ability to understand written health information

Complexity and Difficulty of Print Messages

HEALTH-RELATED ORAL LITERACY
Ability to orally communicate about health

Other Factors:
- Culture and Norms
- Barriers to change

New Knowledge, Positive Attitudes
Greater Self-Efficacy, Behavior Change

Improved Health Outcomes

Skills vs. Demands

Skills

Demands

- Complex Systems
- Drug Labels
- Medical Forms
- Provider Instructions

Individual Capability
Research Has Demonstrated the Following Consequences Associated with Low Health Literacy

- Poor self-reported health status
- Decreased disease understanding
- Excess utilization of institutional medical care
- Decreased use of preventive health services
- Inefficient mix of health utilization and costs

Pharmacy Relevant – Health Literacy Tasks

Literacy Proficiency Level

Below Basic
- Identify what is permissible to drink before a medical test, based on a short set of instructions

Basic
- Explain why it is difficult for people to know if they have chronic medical condition, based on information in a one page article about the condition

Intermediate
- Identify three substances that may interact with an over-the-counter (OTC) drug to cause a side effect, using the OTC label
- Determine the timing of a prescription drug with respect to eating given the information on a prescription label

Proficient
- Calculate an employee’s share of health insurance costs for a year, using a table that shows how the employee’s monthly cost varies depending on income and family size

The Health Literacy Problem

Health Literacy Proficiency

- Below Basic: 12%
- Basic: 14%
- Intermediate: 53%
- Proficient: 22%

The Health Literacy of America’s Adults.
Results from the 2003 National Assessment of Adult Literacy. 2006.
Recognized Priority Populations

• Racial/Ethnic Minorities
• Low Income Groups
• Women
• Age <18 years
• Age ≥ 65 years
• Residents of rural areas
• Individuals with disabilities or special health care needs

IOM, 2004: Health Literacy...

“is fundamental to quality care...”

Relates to 3 of the 6 aims in IOM Quality Chasm Report:

- Safety
- Patient-centered care
- Equitable treatment
The National Action Plan to Improve Health Literacy

• Develop and disseminate health and safety information that is accurate, accessible, and actionable.

• Promote changes in the healthcare system that improve health information, communication, informed decision-making, and access to health services.

• Build partnerships, develop guidance, and change policies.

• Increase the dissemination and use of evidence-based health literacy practices and interventions.

The National Action Plan to Improve Health Literacy

- Incorporate accurate, standards-based, and developmentally appropriate health and science information and curricula in child care and education through the university level.

- Support and expand local efforts to provide adult education, English language instruction, and culturally and linguistically appropriate health information services in the community.

- Increase basic research and the development, implementation, and evaluation of practices and interventions to improve health literacy.

Medication Adherence

• In general, “…the extent to which patients take medications as prescribed by their health care providers.”

• Defined, measured, and characterized in a variety of ways

• Integral intermediate step for optimizing health care outcomes

“Race, sex, and socioeconomic status have not been consistently associated with levels of adherence.”

Medication Adherence

• Factors affecting medication adherence and persistence have been summarized in four categories:

  ➢ Patient Demographics
  ➢ Psychosocial and behavioral characteristics
  ➢ Characteristics of the medication regimen
  ➢ Interface with the health care system

Predictors of Poor Medication Adherence

- Psychological problems (e.g., depression)
- Cognitive impairment
- Asymptomatic disease
- Inadequate follow-up/discharge planning
- Medication side effects
- Patient’s lack of belief in benefit of treatment
- Patient’s lack of insight into the illness
- Poor provider-patient relationship
- Presence of barriers to care or medications
- Missed appointments
- Complexity of treatment
- Cost of medication

Why is health literacy important to medication adherence?

• Adherence to medical instructions requires verbal, written and numeric information to manage prescribed treatment(s)

• Optimal adherence requires a patient to…
  ➢ Read/Listen
  ➢ Comprehend
  ➢ Act

• Adherence may be influenced by patient demographic and psychosocial/behavioral characteristics, complexity of treatment regimen and/or health-system interface

• Failure to understand the healthcare provider instructions undermines the integrity of successful adherence to medical instructions
Health Literacy and Medication Adherence

• When studied, the relationship between health literacy and medication adherence is not so clear\(^1\)
  - Studies are limited
  - Measurements vary

• Example\(^2\)
  - Those with inadequate health literacy, of African-American race, and with a grade school education demonstrated significantly higher odds of nonadherence in bivariate analyses.
  - Only African-American race was significant after considering health literacy, age, race, sex, education and regimen complexity in multivariable models.

Where are we falling short?

NOTE: This session involved audience participation and you may not be able to hear all the audience responses.
Health Literacy and Medication Management

Pharmacy preparedness

- Few pharmacies make an effort to identify patients at risk for low health literacy
- Verbal counseling and written information are commonly cited literacy interventions
- Although print materials are commonly used, only a minority of physicians, pharmacists and nurses surveyed used key literacy interventions such as
  - Teach Back
  - Underlining key points in pamphlets
  - Telephone follow-up to assess understanding

Medication labels and guides

- Written medication information is commonly distributed, prepared at too high of a reading level (11 to 12th grade), and often not read by patients
- Prescription labels lack standardization and emphasize information more relevant to the pharmacist than the patient
- Auxiliary labels are confusing and are difficult to interpret
- Patients can often restate the instructions but cannot demonstrate correct use of the medication

Health Literacy and Medication Management

Verbal communication

- Healthy People 2010 reported in 1998
  - 14% of patients received oral counseling from pharmacists
  - 24% of patients received counseling from their prescriber

- Shame associated with limited health literacy may preclude patient inquiry¹

Health Literacy and Medication Management

Environmental barriers

- Many pharmacy settings do not invite patient questions
- Pharmacists are often inaccessible and not easy to identify
- Signing forms without explanation does not invite dialogue
- High prescription volume limits patient-pharmacist interaction
Disconnect Between Pharmacist and Patient Perceptions and Expectations for Literacy Sensitive Communication

• Differences may exist among pharmacist, patient and independent auditor assessments of literacy-sensitive written and oral literacy communication practices in community pharmacy settings.¹

• While the use of literacy-sensitive communication practices by pharmacists is modest (as reported by patients), patient expectations for these practices is very low.²


What can we do?

NOTE: This presentation involved audience participation and you may not always hear the audience responses.
Useful Health Literacy Practices

• The Commonwealth Fund Study
  – Team effort
  – Standardized communication tools
  – Plain language, face-to-face communication, pictorials, and educational materials
  – Patient-provider partnership to achieve goals
  – Organizational commitment to health literacy

Strategies for Addressing Health Literacy Issues

- Assess your organization
- Review verbal and written communication methods for plain language
- Train staff
- Implement recognized literacy sensitive programs
- Evaluate progress and impact
A Starting Point For Help

- AHRQ Health Literacy and Cultural Competency Webpage
  http://www.ahrq.gov/browse/hlitix.htm

- AHRQ Pharmacy Health Literacy Center
  http://www.ahrq.gov/pharmhealthlit/

- Health Literacy Universal Precautions Toolkit
  http://www.ahrq.gov/qual/literacy/
Assess Your Organization

How do I identify patients with limited health literacy?

- Testing is a controversial topic and not recommended

- Behaviors Suggestive of limited health literacy
  - Inability to keep appointments
  - Making excuses (“I forgot my glasses”)
  - Non-adherence to medications
  - Poor adherence to recommended self-care management activities (e.g. glucose monitoring, exercise, smoking)
  - Postponing making decisions

- Adopt a universal precautions approach
Medicine Lists and Pill Cards

- AHRQ Pill Card
- APhA – My Medication Record
- ASHP – My Medicine List

- Patients can create their own lists
- Medication Reminder Calendars
Simple Steps for Practice

• Assess patient’s baseline understanding before providing extensive information

• Speak slowly

• Use lay language instead of medical jargon

• Emphasize 1 to 3 key points

• Encourage questions using an open-ended questions approach
Simple Steps for Practice

• Use teach back method in oral communication so patient can demonstrate understanding

• Printed information should reinforce, not replace oral communication

• Printed materials should be easy to read format
  ➢ Simple sentences in bulleted format
  ➢ Written at ≤6th grade reading level
  ➢ Highlight or circle key information
  ➢ Supplemented with relevant visual information
Create A Culture of Communication

• **Ask Me 3 Program**¹
  • Promotes the use of 3 questions to be used by patients, answered by providers, and encouraged by health systems
    – What is main problem?
    – What do I need to do?
    – Why is it important for me to do this?
  • Promotes tips for clear health communication
    – Bring a friend or family member to help
    – Make a list of health concerns to discuss with your provider
    – Make a list of current medications
    – Ask your pharmacist when you have questions about your medications

http://www.npsfstore.com/categories/Ask-Me-3-Products/
Policy Considerations

• Regulatory Level
  ➢ Oversight agencies must recognize that providers are key in facilitating communication efforts and reward appropriately

• Health System / Provider Level
  ➢ Create a culture of communication
  ➢ Share interprofessional responsibility among providers
  ➢ Use available tools (AHRQ, Ask Me 3, etc.)

• Research
  ➢ Funding
  ➢ Increase evaluation efforts and their scientific rigor

• Professional Education
  ➢ Emphasize communication training throughout the professional curricula and post-graduate training and development programs

• Community Level
  ➢ Empower patients through public libraries, senior centers, etc.
Assessing Organizational Literacy Sensitivity and Friendliness

Consider the following:

- What is the organization’s philosophy and mission with respect to cultural competence, language access, and health literacy?
- Are policies and procedures in place to accommodate patients with low health literacy or low English proficiency? What are they?
- Are written materials in a language and level that your patients can understand?
- What training is available to all staff?
- What does your organization do well and where are improvements needed?

**NOTE:** This presentation involved audience participation. You may hear periods of silence while the audience is working in small groups. You may not be able to hear all audience responses.
Assessing Health Literacy

TF is a 45 yo with the following medical conditions: Hypertension, Hyperlipidemia, CHF, COPD, Alcohol Dependence, Smoker, and Insomnia

Current Medications:
- ASA 325 mg daily
- Diltiazem 240 mg daily
- Lipitor 40 mg at bedtime
- Coreg 6.25 mg BID
- Lotensin 20 mg BID
- Lasix 40 mg daily
- Trazadone 100 mg at bedtime
- Advair 250/50 2 puffs BID
- Albuterol 1-2 puffs QID as needed

Social History:
Employment: Stage Hand but currently unemployed and disabled
Education: High school
Marital Status: Divorced with 2 grown children
Race/Ethnicity: Caucasian
Assessing Health Literacy

• What risk factors make TF most likely to have low health literacy skills?

• What techniques or tools would you use to assess TF’s level of health literacy? Discuss the pros and cons of using the tool or tools you have chosen.

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Teaching a patient with low health literacy skills

PH is a 58 yo with the following medical conditions:
Hypertension, and Insomnia

Current Medications:
- ASA 81 mg daily
- Atenolol 100 mg daily
- Benazepril 40 mg daily
- Norvasc 10 mg daily
- Multivitamin 1 tablet daily
- Tylenol Extra-Strength 1 tablet QID prn pain

Social History:
Employment: Line cook at a local diner

Education: High school education and some college

Marital Status: Married with two adult children

Race/Ethnicity: African American
Teaching a patient with low health literacy skills

• You’ve assessed that PH has low health literacy skills.

• PH admits that she has trouble remembering if she has taken her medications.

• What strategies would you use to counsel PH on taking her medicines as prescribed?

• What tools would you recommend that PH use to assist her in taking her medications?

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Assessing Medication Adherence

DT is a 68 yo with the following medical conditions: Hypertension, Hyperlipidemia, Osteoporosis, Incontinence, and Asthma

**Current Medications:**
- ASA 81 mg daily
- Calcium Carbonate 500 mg w/Vit D 200 units 2 tabs daily
- Lovastatin 20 mg at bedtime
- Fosamax 70 mg weekly
- Atenolol 25 mg daily
- Multivitamin 1 tablet daily
- Ditropan XL 5 mg daily
- Advair 250-50 1 puff BID
- Albuterol 2 puffs prn wheezing

**Social History:**
- Employment: Unemployed
- Education: High school
- Language: English is her second language
- Marital Status: Married with 3 grown children
- Race/Ethnicity: Mexican
Assessing medication adherence in a patient with low health literacy skills

• You’ve assessed that DT has low health literacy skills.

• DT assures you that she takes her medicines every day.

• What questions would you ask DT to assess medication adherence?

• What strategies would you recommend that DT use to assist her in being adherent with her medications?

NOTE: This presentation involved audience participation. You may hear periods of silence while the audience is working in small groups. You may not be able to hear all audience responses.
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b. Explain why it is difficult for people to know if they have a chronic medical condition, based on information in a one page article

c. Identify three substances that may interact with an OTC drug to cause a side effect, using information on an OTC drug label.

d. Calculate an employee’s share of health insurance costs for a year, using a table that shows how the employee’s monthly cost varies depending on income and family size.
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Which of the following statements is true?

a. All pharmacy patients should be asked to complete a health literacy assessment before speaking with a pharmacist
b. The “teach back” method is designed to assist patients with visual learning styles
c. Socioeconomic status is directly and consistently correlated with medication adherence
d. Poor adherence to recommended self care is suggestive of limited health literacy
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