Health Literacy: Background, Tools, and Curriculum Integration

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Learning Objectives

• Review the concept of health literacy and variations among special population subgroups in the United States

• Provide evidence that underscores a need for improving pharmacist participation in literacy sensitive practices

• Discuss literacy-based tools and interventions that can be integrated into a pharmacy curriculum

• Propose opportunities to integrate health literacy principles into a pharmacy curriculum
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

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
- Listening Skills
- Speaking Skills
- Writing Skills
- Reading Skills
- Numeracy Skills
Skills vs. Demands

Skills

Demands

- Individual Capability
- Medical Forms
- Drug Labels
- Complex Systems
- Provider Instructions
Milestones in Health Literacy

1992 NALS

Key Studies During the mid-late 1990s

2004 IOM Report

2010 National Action Plan to Improve Health Literacy

2003 NAAL (Results – 2006)
Milestones in Health Literacy

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2010 National Action Plan to Improve Health Literacy
Some 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

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Institute of Medicine Reports

• Health Literacy is fundamental to quality care
  – Safety
  – Patient-centered care
  – Equitable treatment

• Quality Chasm Series – Priorities for National Action
  – Self management and health literacy are cross-cutting priorities for improving health care quality and disease prevention
Health Literacy is essential for...

- Health promotion and disease prevention
- Understanding, interpreting and analyzing health information
- Applying health information to life situations
- Navigating the health system
- Active participation in health encounters
- Understanding and providing consent

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The Health Literacy Problem

Health Literacy Proficiency

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

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

Demographic Correlates of Health Literacy

The Health Literacy of America’s Adults. Results from the 2003 National Assessment of Adult Literacy. 2006. 
Milestones in Health Literacy

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Key Studies During the mid-late 1990s

2004 IOM Report

2003 NAAL (Results – 2006)

2010 National Action Plan to Improve Health Literacy
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.

Healthy People 2020 Goals Related to Health Literacy

• (Developmental) Improve the health literacy of the population
• Increase the proportion of persons who report their health care providers:
  ➢ always gave them easy-to-understand instructions about what to do to take care of their illness or health condition
  ➢ always asked them to describe how they will follow the instructions
  ➢ always offered help in filling out a form
  ➢ always listened carefully to them
  ➢ have satisfactory communication skills
  ➢ always explained things so they could understand them
  ➢ always showed respect for what they had to say
  ➢ always spent enough time with them
  ➢ always involved them in decisions about their health care as much as they wanted

Recognized Importance of Health Literacy

Joint Commission Report
- “What Did the Doctor Say? Improving Health Literacy to Protect Patient Safety”
  [http://www.jointcommission.org/assets/1/18/improving_health_literacy.pdf](http://www.jointcommission.org/assets/1/18/improving_health_literacy.pdf)

National Quality Forum
- Safe practice #5 - Ask each patient or legal surrogate to “teach back” in his or her own words key information about the proposed treatments or procedures for which he or she is being asked to provide informed consent.

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)
- Communication w/ providers
- Communication about medicines
- Discharge Information
  [http://www.hcahpsonline.org/home.aspx](http://www.hcahpsonline.org/home.aspx)
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

Health Literacy and Medication Management

Medication labels and guides

- Written medication information is commonly distributed, prepared at too high of a reading level (11 to 12\textsuperscript{th} 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

Consider a medication adherence example...

- 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.

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Where are we falling short?

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 inquiry\(^1\)

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Race, Sex, and Communication About NSAID Risk

- Risk communication about prescription NSAIDs has been shown to vary significantly by race and sex combinations
  - White men (40.3%)
  - White women (34.6%)
  - Black men (30.2%)
  - Black women (19.8%)
  - p<0.001 for trend

Health Literacy, WMI, Counseling and NSAID Risk Awareness

• Health literacy and education level were associated with significantly higher odds of NSAID risk awareness, but not when included together in multivariable models.
• Older age (≥65 years) and Medicaid uninsured status were associated with significantly lower odds of NSAID risk awareness.
• Physician counseling was associated with significantly higher odds of NSAID risk awareness.
• Pharmacist counseling and written medicine information were not associated with NSAID risk awareness.

Health Literacy and 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

Health Literacy and Pharmacy Preparedness

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
Strategies for Managing Health Literacy in a Pharmacy or Health System

- Assess the organization
- Review verbal and written communication methods for plain language
- Train staff
- Implement recognized literacy sensitive programs
Assess the Organization
Is Our Pharmacy Meeting Patients' Needs? (continued)

Appendix 1: Conducting a Health Literacy Assessment—Flow Chart
How do I identify patients with limited health literacy?

- Signs of limited health literacy

- Common health literacy testing tools
  - REALM
  - TOFHLA family
  - Newest Vital Sign

- Testing is a controversial topic and not recommended

- Adopt a universal precautions approach
## An Alternative to Health Literacy Testing

<table>
<thead>
<tr>
<th>Question</th>
<th>Inadequate</th>
<th>Adequate / Marginal (A-M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ1 “How often do you have problems learning about your medical condition because of difficulty understanding written information?”</td>
<td>Always, Often, Sometimes</td>
<td>Occasionally, Never</td>
</tr>
<tr>
<td>SQ2 “How confident are you in filling out medical forms by yourself?”</td>
<td>Not at all, A little bit, Somewhat</td>
<td>Quite a bit, Extremely</td>
</tr>
<tr>
<td>SQ3 “How often do you have someone (like a family member, friend, hospital/clinic worker, or caregiver) help you read hospital materials?”</td>
<td>Always, Often, Sometimes</td>
<td>Occasionally, Never</td>
</tr>
</tbody>
</table>

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

Ask Me 3 Program

• 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
Promoting Health Communication Between Seniors and Pharmacists

Do you bring a list of current medicines when you visit your pharmacist?

Use of Plain Language
AHRQ Tools for Health Literacy
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 $\leq 6^{th}$ grade reading level
  ➢ Highlight or circle key information
  ➢ Supplemented with relevant visual information
Areas for Integration of Health Literacy into Pharmacy Curricula

- Emphasize communication training throughout the curriculum
- Require students in all courses to translate at least one concept into plain language
- How to create a culture of communication
- Apply and use available tools (AHRQ, Ask Me 3, etc.)
- Teach concepts in sharing communication responsibility among providers
- Empower patients through community partnerships (public libraries, senior centers, etc.)
- Research demonstration projects
Questions and Discussion