HEALTH LITERACY AND
COMMUNICATION DISORDERS

2014 SOUTH DAKOTA SPEECH-LANGUAGE-HEARING
CONVENTION
SIOUX FALLS, SD

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University of Arkansas at Little Rock
University of Arkansas for Medical Sciences

Session Topics
What we plan to cover today...

Health Literacy
What is it? 1

Our Research
Readability of Materials in Comm. Sci. & Dis. 2

What’s Next?
Interventions to promote health literacy 3

The single biggest problem in communication is the illusion that it has taken place.
-George Bernard Shaw
Session Topics
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Communication is essential for the effective delivery of health care

Clear communication ensures that the patient provides us with the information we need...
...and them the information they need to get the best health outcome

There is often a mismatch between a clinician’s level of communication and a patient’s level of comprehension

What is Health Literacy?

“The degree to which individuals have the capacity to obtain, process, and understand basic health information and services to make appropriate decisions.”
At its Core:

A patient's ability to obtain, understand and act on health information

A provider's capacity to communicate clearly, educate about health, and empower their patients

Health Literacy: A Constellation of Skills

<table>
<thead>
<tr>
<th>Print Literacy</th>
<th>Numeracy</th>
<th>Oral Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex: Complete medical history forms; read prescription labels</td>
<td>Ex: Calculate portion of co-pay for medical insurance</td>
<td>Ex: Explain symptoms to clinician; understand treatment options</td>
</tr>
</tbody>
</table>
Health Literacy
Health-Related Activities of Everyday Life

<table>
<thead>
<tr>
<th>Health Promotion</th>
<th>Enhance and maintain health</th>
</tr>
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<tbody>
<tr>
<td>Health Protection</td>
<td>Safeguard health of individuals and communities</td>
</tr>
<tr>
<td>Disease Prevention</td>
<td>Take preventative measures and engage in screenings</td>
</tr>
<tr>
<td>Health Care</td>
<td>Seek care and form a partnership with a healthcare professional</td>
</tr>
<tr>
<td>Navigation</td>
<td>Access needed services, and get coverage and benefits</td>
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A Sobering Literacy Fact
The average reading comprehension level of English-speaking adults in the U.S. is estimated to be only at the 8th grade level.
Another Sobering Fact

1 in 5 Adults in the U.S. reads at the 5th grade level or below

Health Literacy Skill Levels

Percentage of Adults

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

Adults in the U.S. who have basic or below basic health literacy skills

A Staggering Figure

90 million

Basic Health Literacy Skill

Can read a pamphlet and determine two symptoms of a disease

Below Basic Skill

Can circle the date on an appointment slip
Below Basic Health Literacy Rates

Alaska: 14%

Hawaii: 6%

Sioux Falls: 6%

Little Rock: 10%

Would You Believe...

1 in 3 adults Cannot do the following...

Use a BMI graph to calculate their healthy weight

Understand a vaccination chart
Limited health literacy is the strongest predictor of negative health outcomes

Limited Health Literacy
Significant impact in multiple domains

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<th>Health Outcomes</th>
<th>Access to Care</th>
<th>Patient Safety</th>
<th>Quality Care</th>
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<tr>
<td>Impacts understanding of medication labels and treatment regimens</td>
<td>Health care information and institutions are complex and confusing</td>
<td>Patients may not clearly report about their conditions and/or medications</td>
<td>Patients report lower satisfaction with their doctors and clinics</td>
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Money Talk$…

$100+ Billion
Estimated annual cost to U.S. healthcare system

Who is at Risk?

High school dropout

Who is at Risk?

Prisoners
Who is at Risk?

Age 65 or older

Who is at Risk?

Latino or Hispanic

Who is at Risk?

African-American
Who is at Risk?

American Indian

Who is at Risk?

Spoke non-English as a child

Who is at Risk?

Recent immigrant who does not speak English
Who is at Risk?

Sick or disabled

Who is at Risk?

Medicaid or Medicare

Don’t Assume! – Largest Segment of the Population: Caucasian, Native-born Americans 60 million
Don’t Assume! – Educated People Can Still Struggle:

3%
People with college degrees who have below basic literacy skills

Many patients with limited health literacy hide this from their spouses

Most patients also hide this from their doctor
Patients report shame and embarrassment

Limited Health Literacy
Warning signs

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<tr>
<td><strong>Forms</strong></td>
<td>Incomplete or inaccurate</td>
</tr>
<tr>
<td><strong>Appointments</strong></td>
<td>Frequently missed or rescheduled</td>
</tr>
<tr>
<td><strong>Follow-Through</strong></td>
<td>Don't get labs or other work done</td>
</tr>
<tr>
<td><strong>Medications</strong></td>
<td>Don't take medications; no change</td>
</tr>
<tr>
<td><strong>Vision</strong></td>
<td>Blame poor vision or forgot glasses</td>
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Limited health literacy is often undetected by healthcare professionals
Physicians who correctly identified patients with limited health literacy are only 50%.

Knowledge of health literacy concepts and facts by clinicians is poor...
Surveyed 230 professionals and students in medicine, nursing, dentistry, and allied health.

Examined their knowledge of the impact of limited health literacy on the healthcare system and the individual patient.
An alarming quote from one respondent:

“Health literacy has nothing to do with my clinical practice…”

Limited health literacy must be addressed at three levels:

1. Patient
2. Provider
3. System
“Knowing is not enough; we must apply. Willing is not enough; we must do.”
(Johann Wolfgang von Goethe)

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The Burden is on Us
Individuals with speech-language and hearing disorders are at particular risk for limited health literacy (ASHA, 2008)
We can be pivotal in providing insight into how to communicate complex messages to individuals who have limited health literacy.

A common approach to determining the reading comprehension level for a given document is to assess its *readability*.

Readability is defined as, “...the ease with which a person can read and understand written materials” (Freda, 2005, p. 152).
Hester and Stevens-Ratchford (2009) suggest: ...there is clearly a need for health literacy research in the areas of audiology and speech-language pathology.

Number of published CSD-related readability articles through 2009: 6

Number of published CSD-related readability articles since 2010: 9
215 CSD-Related Materials Analyzed with the FORCAST Font

Reading Grade Level:
7% = > College
45% = 11th-12th
38% = 9th to 10th
10% = 7th to 8th
00% = 5th to 6th

2014 Contemporary Issues in Communication Sciences and Disorders, 41, 12-23

A Computer-Based Readability Analysis of Consumer Materials on the Website of the American Speech-Language-Hearing Association

Samuel R. Atcherson, Ph.D. *
Kristie Hadden, Ph.D.
Ashley E. DeLaune, B.S. *
Richard I. Zraick, Ph.D. *
Rebecca J. Kelly-Campbell, Ph.D. **
Carlos P. Minaya, B.A. *
A Need for Health Literacy Curriculum: Knowledge of Health Literacy among U.S. Audiologists and Speech-Language Pathologists in Arkansas

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University of Arkansas for Medical Sciences, University of Arkansas at Little Rock, Little Rock, AR

Education for Health (EfH) Journal

A Need for Health Literacy Curriculum: Knowledge of Health Literacy among U.S. Audiologists and Speech-Language Pathologists in Arkansas

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University of Arkansas for Medical Sciences, University of Arkansas at Little Rock, Little Rock, AR
Table 1: Percentage Correct Responses for Knowledge of Limited Health Literacy Survey

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<th>Survey Questions</th>
<th>SLP (n = 332)</th>
<th>AUD (n = 42)</th>
<th>Students (n = 272)</th>
<th>Overall</th>
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<td>Having at least a high school education will not guarantee adequate health literacy</td>
<td>79.2%</td>
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<td>The average American reads at the 5th grade level</td>
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Note: SLP = speech-language pathology; AUD = audiology

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1. Health Literacy
   What is it?

2. Our Research

3. What's Next?
   Interventions to promote health literacy
“Please speak like a human… Make it better, not worse.”
(Anonymous patient, 2011)

Speak slowly
Teach back
Encourage questions
Plain language
Show examples

to better health literacy

TEACH-BACK METHOD
Asking patients to repeat in their own words what they need to know or do, in a non-shaming way

A chance to check for understanding and, if necessary, re-teach the information

Phase 1: Explain new concept
Phase 2: Patient explains it back
Phase 3: Clinician clarifies
Phase 4: Patient explains it back again
I know what I'm supposed to do!

Surveyed ~2500 patients
Q: Who received Teach-Back?
This is a very good thing! But...

Who else should be receiving it?
Describe a 5-step method for evaluation and adaptation of patient print materials to meet a ≤5th grade readability criterion.
## Five-Step Methodology
**Evaluation and adaptation of print materials**

<table>
<thead>
<tr>
<th>First Step</th>
<th>Second Step</th>
<th>Third Step</th>
<th>Fourth Step</th>
<th>Final Step</th>
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<tr>
<td>Evaluate readability of original document</td>
<td>Identify essential medical terms and scientific jargon for simpler redefinition</td>
<td>Identify sentences &gt; 5th grade reading level and revise</td>
<td>Evaluate readability of adapted document</td>
<td>Compare on of pre-adaptation and post-adaptation readability</td>
</tr>
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### Questions?

### A Great Systematic Review
**Agency for Healthcare Research & Quality**

**Health Literacy Interventions and Outcomes: An Updated Systematic Review**

Evidence Reports/Technology Assessments, No. 195

Investigators: Nancy B. Berkman, PhD, M.J.R; Stacey I. Shekelle, MD, MPH; Katrina E. Donohue, MD, MPH; Sarah J. Hageman, MD, MPH; Jennifer T. Panos, MD, MPH; Karen Cahalin, PhD, MPH; Sharron L. Perlis, MD, MPH; Karen Elder, PhD, MPH; Katherine Hollander, MD, MPH; Michelle Biddle, PhD, Kathleen M. Linn, PhD, Elizabeth Harlan, MPH, Elizabeth Tambor, MD, Tina Holland, PhD, and Tara Vickers-William, PhD.

NIH National Institute of Nursing Research/National Center for Advancing Translational Sciences Practice Center

Rockville (MD): Agency for Healthcare Research and Quality (US), March 2011.

Report No. 195-0080
Thank You!

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