Nutrition Literacy: Approaches to Reach Spanish-speaking Audiences

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Percentage of Adults at Each Health Literacy Level: 2003

ALL
- Proficient: 12%
- Below Basic: 14%
- Basic: 22%
- Intermediate: 52%

WHITE
- Proficient: 14%
- Below Basic: 9%
- Basic: 19%
- Intermediate: 58%
HEALTH LITERACY DISPARITIES

Percentage of Adults at Each Health Literacy Level: 2003

ALL
- Proficient: 12%
- Below Basic: 14%
- Basic: 22%
- Intermediate: 52%

HISPANIC
- Proficient: 4%
- Below Basic: 40%
- Intermediate: 31%
- Basic: 25%
20.9% of US population language other than English spoken at home: 2014

- Spanish: 62%
- Indo-European: 18%
- Asian: 16%
- Other: 4%

Hispanic/Latino ability to speak English: 2010-2014

- Very well: 55%
- Well: 18%
- Not well: 17%
- Not at all: 10%
## Health Literacy & English Proficiency

### Self-Reported Poor Health Status, 2007 California Health Interview Survey (CHIS)

<table>
<thead>
<tr>
<th></th>
<th>ALL</th>
<th>LATINO</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Proficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>45.1%</td>
<td>44.5%</td>
</tr>
<tr>
<td>YES</td>
<td>22.2%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Health Literacy</td>
<td>low 41.1%</td>
<td>adequate 42.4%</td>
</tr>
<tr>
<td></td>
<td>adequate 13.8%</td>
<td></td>
</tr>
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<td></td>
<td>22.6%</td>
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</table>

All group comparisons are significant at the level of p<0.001 from chi-square analyses.
“Provide effective, equitable, understandable, and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy, and other communication needs.”
CONCEPTUAL MODEL OF HEALTH LITERACY

Individual Capacity

- Reading Fluency
  - Prose
  - Quantitative
  - Document

- Prior Knowledge
  - Vocabulary
  - Conceptual knowledge of health & healthcare

Complexity & Difficulty

Health-related PRINT LITERACY
ability to understand written health info

Health-related ORAL LITERACY
ability to orally communicate about health

Culture & Norms
Barriers to change

Knowledge
- Attitudes
- Self-efficacy
- Behavior Change

Improved Health
CULTURAL APPROPRIATENESS

Surface Structure

ACCCEPTANCE

Prerequisite for feasibility
(i.e., face validity)

Apparent characteristics
E.g., traditional foods in materials and examples, deliver program in Spanish and in familiar locations

Deep Structure

SALIENCE

Determines effectiveness

Underlying conceptions & values informing people’s perception of the world

Cultural values, moral, beliefs, stressors
E.g., familismo, personalismo, fatalism, simpatía

Demands empathy & rapport

EXAMPLES OF EVALUATION MATERIALS

H. Gibbs, et al

1. Si el número de calorías es el mismo para los dos alimentos en la imagen de abajo, ¿Qué alimento proporciona los nutrientes más saludables en general?
   A. Un puré de manzana sin azúcar añadida
   B. Una manzana
   C. Un puré de manzana sin azúcar añadida y una manzana son igual de saludables

2. Usando las imágenes de arriba, elija la porción correcta para pollo:
   A. Muslo (3 onzas)
   B. Cuarto (5 onzas)
   C. Medio (10 onzas)

M. Townsend, et al

Food Behavior Checklist

Goals for Healthy Kids

University of California
Agriculture and Natural Resources
Examination by subject-matter experts for conceptual integrity assurance. Involves back-translation.

1. **Forward Translation**
   - Native speakers, bilingual, bicultural researchers

2. **Equivalence Verification**

3. **Cognitive Interviewing**
   - Appraisal of respondents’ comprehension & congruence with intended meaning
Domains of Cognitive Interview Questions

- **COMPREHENSION**: ability to respond or react to item
  - How would you respond to this question?

- **CLARITY**: of words & syntax
  - Can you please read the question aloud?

- **APPROPRIATENESS**: of language & meaning for culture & values
  - Are there any words that you would change?

- **RELEVANCE**: connection to real-life situations
  - Does the photo represent the question asked?
  - What does this scenario look like in your household?

- **VISUALS**: suitability & usefulness

- **BILINGUAL**: equivalence of versions
  - Does the Spanish version ask the same as the English version?
Examining respondents’ comprehension & congruence with intended meaning

Pre-Final Version

Cognitive Interviewing

Examination by subject-matter experts for conceptual integrity assurance. Involves back-translation

Equivalence Verification

Forward Translation

Native speakers, bilingual, bicultural researchers
Culturally Sensitive Nutrition Education

¡SALUD! Comiendo en Familia

Latino parents with young children

Social Cognitive Theory

Healthy eating

Knowledge
Self-efficacy
Outcome expectancies
Barriers
Goal Setting
Pedagogic Approach

Culturally Sensitive NE Approach for Latino Parents with Young Children

**TALK**
- Facilitated group discussions, round-table style
- Information
- Barriers

**HEART**
- Emotion-based materials
- Storytelling
- Touching Hearts, Touching Minds

**HANDS**
- Skill-building activities
- Goal-setting
- Self-efficacy

# TALK, HANDS, HEART APPROACH

<table>
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<tr>
<th>SESSION</th>
<th>TARGET BEHAVIOR</th>
<th>TALK</th>
<th>HEART</th>
<th>HANDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Welcome</td>
<td>Improving eating practices learned from family when a child</td>
<td>My Childhood Meals</td>
<td>EBM: Follow the Leader (Role Modeling)</td>
<td>Magic Word (Goals)</td>
</tr>
<tr>
<td>2 Superfoods</td>
<td>Incorporate Superfoods in the diet</td>
<td>Florence’s Story: Failure &amp; Success Today’s Breakfast</td>
<td>EBM: Tasteful Gifts (Superfoods)</td>
<td>Foods in their Groups The Superfood Tomorrow’s Breakfast</td>
</tr>
<tr>
<td>3 My Plate</td>
<td>Create nutritious meal plates</td>
<td>The Son’s Letter: Gifts from Parents</td>
<td>My Family’s Plate &amp; Health, Today &amp; Tomorrow</td>
<td>Discovering Portion Sizes Creating Meals</td>
</tr>
<tr>
<td>4 Reading Labels</td>
<td>Make healthier choices using food labels</td>
<td>Stone-Breaking Men, Moms Cooking: A Wellness Vision</td>
<td>“Not all that shines is gold”</td>
<td>Food Label Inspector Finding the Healthiest Choice</td>
</tr>
<tr>
<td>5 Let’s Eat</td>
<td>Establish a meal schedule and a healthy meal environment</td>
<td>The Fly in the Wall: Family meals</td>
<td>EBM: Set the Table (Family Meals)</td>
<td>Experiment Recipe My Breakfast Plate</td>
</tr>
</tbody>
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# Talk, Hands, Heart Approach

## Feasibility Evaluation – Focus Groups

### Talk

“I liked it because with each different opinion that they gave, from each one I could learn something.”

“It helped me a lot to know that there are other people going through the same thing as [me].”

“I do believe this was the opportunity we were all waiting for to…learn about our ways of life, our customs, etc.”

### Heart

“I think that they are important because it serves as an example of motivation for us to absorb or learn and to carry it out with more awareness.”

“…what they sought to make us understand is that the good eating comes from home and that it is there, at home, where we are going to learn good eating habits that further along we are going to transmit…that is, a chain.”

### Hands

“They are] very important, because the nutritionist tells you what you should eat and everything, but the activities helped you to actually do it.”

“Without this activity maybe we would have felt like we didn’t know what to do when at home or at the supermarket.”
Health literacy disparities affect importantly Latinos in the US

Culturally sensitive nutrition education essential for effective reach of Latino audiences

Grounded approach to material development involves members of target audience at all steps
Research Teams:

University of Illinois: Karen Chapman-Novakofski, PhD, RD; Henna Muzaffar, RD, PhD; Brandon Meline, MS, RD

UC Davis: Marilyn Townsend PhD, RD; Mical Shilts, PhD; Lenna Ontai, PhD; Gloria Zavala, BS; Maria Espinoza, BS

Research Support:

Christopher Family Foundation of the Family Resiliency Center's Food and Family Program at the University of Illinois

National Institute of Food and Agriculture, U.S. Department of Agriculture, award number 2015-68001-23280
TWEET STORM

What comes to your mind when hearing the word…?

and/or

Translations in any language

Include hashtags:

#NutritionLiteracy
#SNEB16

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Karina Díaz @harinitta · 29s
SNACK = Entre comidas (Mexico) #NutritionLiteracy #SNEB16
¡Gracias!

I don't care what Congress says, that's no vegetable.