The Past, Present, and Future of Health Literacy Measurement: An Inventory and Descriptive Summary of Available Health Literacy Instruments

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In the beginning...

- HARC IV in 2012
  - *Improving Coherence Between Health Literacy Frameworks and Measures*
- Summarized 18 tools
- Recognized need for comprehensive inventory and descriptive summary
NOTE:

Project Objectives

1. Review psychometric properties, test parameters, and conceptual dimensions of published health literacy measurement tools.

2. Create an inventory for researchers, decision-makers and practitioners.

3. Identify validated measurement tools that are fitting for their research and practice.
Methods

• Peer-reviewed literature search
  ▫ PsychInfo and PubMed databases
  ▫ Dates: 1999-2013
• Grey literature
• Environmental scan
Flow Chart of Literature Search

- Total articles identified in electronic search = 3,189
  - Articles excluded after title screening = 2,888

- Articles selected for abstract and full text review = 301
  - Articles excluded after abstract and full text review = 271

- Articles included using environmental scan = 21
  - Articles included in the review = 51

Does not count 14 short/translated forms as unique tools
Findings

51 unique tools were identified
14 Alternate/Short/Translated tools not included as unique
65 Tools found and cited

- 51 Tools Considered Unique for Review
  - 26 general health literacy
  - 15 disease/content specific
  - 10 population specific
Defined Measure Characteristics

- Publication date
- Description
- Objective vs. Self-reported
- Self-administration
- Long-distance administration
- Administration time
- Number of items/scales
- Training required to administer
- Scoring
- Target audience
Specified health literacy dimensions

1. **Literacy*** - the ability to perform basic reading tasks
2. **Interaction*** - the ability to communicate on health matters
3. **Comprehension*** - the ability to derive meaning from sources of information
4. **Numeracy*** – was included as the ability to perform basic numerical tasks and arithmetic operations
5. **Information seeking*** - which entails the ability to find health related information to manage one’s health
6. **Application/function*** - the ability to use, process or act on health related information, and apply new information
7. **Decision-making/critical thinking*** - the ability of making health-related decisions and informed choices
8. **Evaluation*** - the ability to filter, interpret, and evaluate information
9. **Responsibility*** - the ability to take responsibility for one’s health and healthcare decision making

*Sørensen et al., 2012

Two additional dimensions:

11. **Confidence** - level of confidence to take action to improve personal and community health
12. **Navigation** - level of skill to navigate in society and in health systems to manage one’s health needs

*"Maintaining and promoting health"* - the ability to increase control over health, reduce health risks, and enhance and improve health to accomplish health related objectives and increase quality of life. Lack of agreement in the review process resulted in exclusion from the review.
Other Descriptive Details

- Validation Details
- Strengths & Weaknesses
  - Validation efforts
  - Ease of use
  - Time needed to administer
  - Length of tool
  - Cultural/population appropriateness
Findings

- Tools were typically:
  - Performance based
  - Many TOFHLA & REALM “like”
  - In-person administration
  - Pencil/paper testing
- Variation in dimension measurement
  - 0 to 9 of 11 dimensions
- Administration time = <1 to 60 minutes
- Validation procedures limited by inadequate power
  - lack information on key psychometric properties
Summary

- Many tools exist with more published since this review
- Currently:
  - Tools represent a narrow set of dimensions
  - Significant measurement validation is needed
  - Representative sampling is needed
  - Limited modes of administration
- Current “Tool Shed” inventory is needed resource
Conclusions

To advance measurement:
1. Include full range of dimensions
2. Establish validity
3. Provide representative sampling for testing
4. Provide multiple modes of administration

When publishing:
1. Report all relevant characteristics
2. Clearly align items with relevant health literacy constructs