

Application of Health Literacy Best Practices to Engage Patients and Families in Preventing Falls



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BACKGROUND

Patient falls are the second leading cause of hospital adverse events resulting in pain, functional impairment, emotional distress, and sometimes death¹. These poor outcomes lead to higher overall costs and resource utilization as well as longer length of stay². Falls cost the U.S. healthcare system upwards of \$20 billion dollars each year and on average, add 6.3 days to a patient stay³.

Health literacy is one factor that impacts patient and caregiver understanding of education designed to reduce the risk of falls. Inadequate health literacy is also a common problem in the U.S., affecting over 80 million people⁴. A common approach to lowering literacy demands on patients is the use of plain language. Plain language has been defined as “communication your audience can understand the first time they read or hear it.”⁵ Likewise, effective health education programs are often guided by health behavior theories which help predict and explain health behaviors and therefore inform specific educational needs.

This project was implemented using an iterative process in which health behavior theory, plain language best practices, and field testing were applied to improve a series of patient/caregiver education documents focused on preventing falls. A central goal was that consumers with varying health literacy levels be optimally able to read, understand, and act upon the information presented.

PROJECT DESCRIPTION

HD Nursing and one of its health system partners identified barriers to patient and caregiver acceptance and uptake of recommended safety behaviors designed to prevent falls. HD Nursing collaborated with the Center for Health Literacy at the University of Arkansas for Medical Sciences (UAMS CHL), who assessed and edited a series of existing educational materials using health literacy best practices, modified messaging to reflect barriers to action, and field tested materials.

METHODS

UAMS CHL assessed materials for readability using tools validated in English and Spanish. Partners discussed relevant theories of health behavior and identified messaging to be incorporated—specifically to address the health belief model’s constructs of perceived risk and self-efficacy; thus, messaging was added to better convey risk for falling and to engage patients and families as capable partners in care. Modifications were made to the materials to emphasize these messages and to apply best practices in plain language writing.

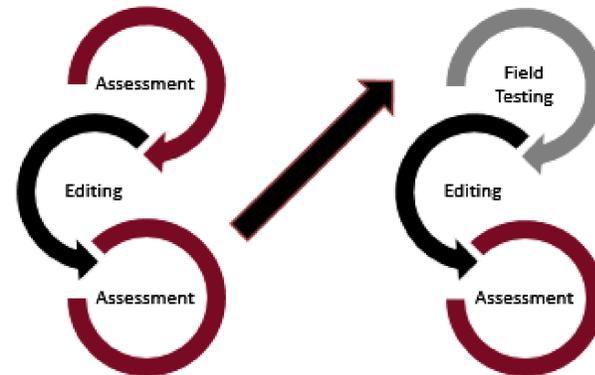


The team conducted a focus group which included individuals at risk for inadequate health literacy. A trained facilitator used UAMS CHL’s innovative “stoplight coding” questions⁶ to solicit feedback on content clarity, selected questions from the Patient Education Materials Assessment Tool (PEMAT)⁷ to measure readers’ understanding of the content and perceived ability to act on the contents, and asked custom questions to determine how well the new and expanded key messages resonated with readers.

Field testing recommendations informed another series of document edits, and the final English products were translated into Spanish and reassessed to ensure desirable readability in both languages.

RESULTS

Iterative Redesign Process



Readability Assessment

English

- 3 formulas
- Originals
 - Range: 3rd -7th grade
 - Mean: 5.1
- Finals
 - Range: 2nd – 6th grade
 - Mean: 3.7

Spanish

- 2 formulas
- Originals
 - Scale 1: 71.89 (6th grade)
 - Scale 2: Below 5th grade
- Finals
 - Scale 1: 78.62 (6th grade)
 - Scale 2: Below 5th grade

Results are expressed as years of education required to read text
*Higher numerical value denotes more favorable readability

Sample Documents (Post-Edit)

The image shows two sample documents side-by-side. The left document is titled "You are at Risk for Falling: Help Us Keep You Safe" and contains text about fall risks and safety tips. The right document is titled "Cómo Prevenir las Caídas en Casa" and contains text about preventing falls at home, including instructions on how to get up safely. Both documents include a small HD Nursing logo in the bottom right corner.

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OUTCOMES/IMPACT

The improved educational materials are now available to more than 100 health systems who serve tens of thousands of English and Spanish speaking patients nationwide. Each document boasts excellent readability along with superb objective ratings for understandability and actionability. Consumers vetted the new and expanded messaging to convey risk of falling and to engage patients and families as capable partners in the prevention of falls. Materials can be used in both hospital and community settings.

IMPLICATIONS FOR PRACTICE

The process described here underscores the value in partnerships between clinicians and health literacy professionals. Together, the team identified challenges with existing materials, considered health behavior theory and plain language best practices in the editing process, included individuals with inadequate health literacy in an innovative and published methodology for field testing, and produced a series of materials that will be used by thousands of patients nationwide. Other organizations can contribute to individual and population health by applying a similar strategy for iterative document redesign when communicating high-stakes health information to patients and the public.

Original Text (sample of instruction that was not rated by experts as “actionable” due to lack of specificity):

“Look down and place your “nose over your toes” before you stand up.”



Modified Text (additional words added to promote clarity; still perceived as “not actionable” by consumers in field testing)

“Look down (but don’t bend down) and place your nose over your toes before you stand up.”



Custom Photo

(added to make the instruction actionable):



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4. Kutner M, Greenberg E, Jin Y, & Paulsen, C. *The Health Literacy of America’s Adults: Results from the 2003 National Assessment of Adult Literacy* (NCES 2006-483). Washington, DC: U.S. Department of Education: National Center for Education Statistics; 2006.
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