

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.

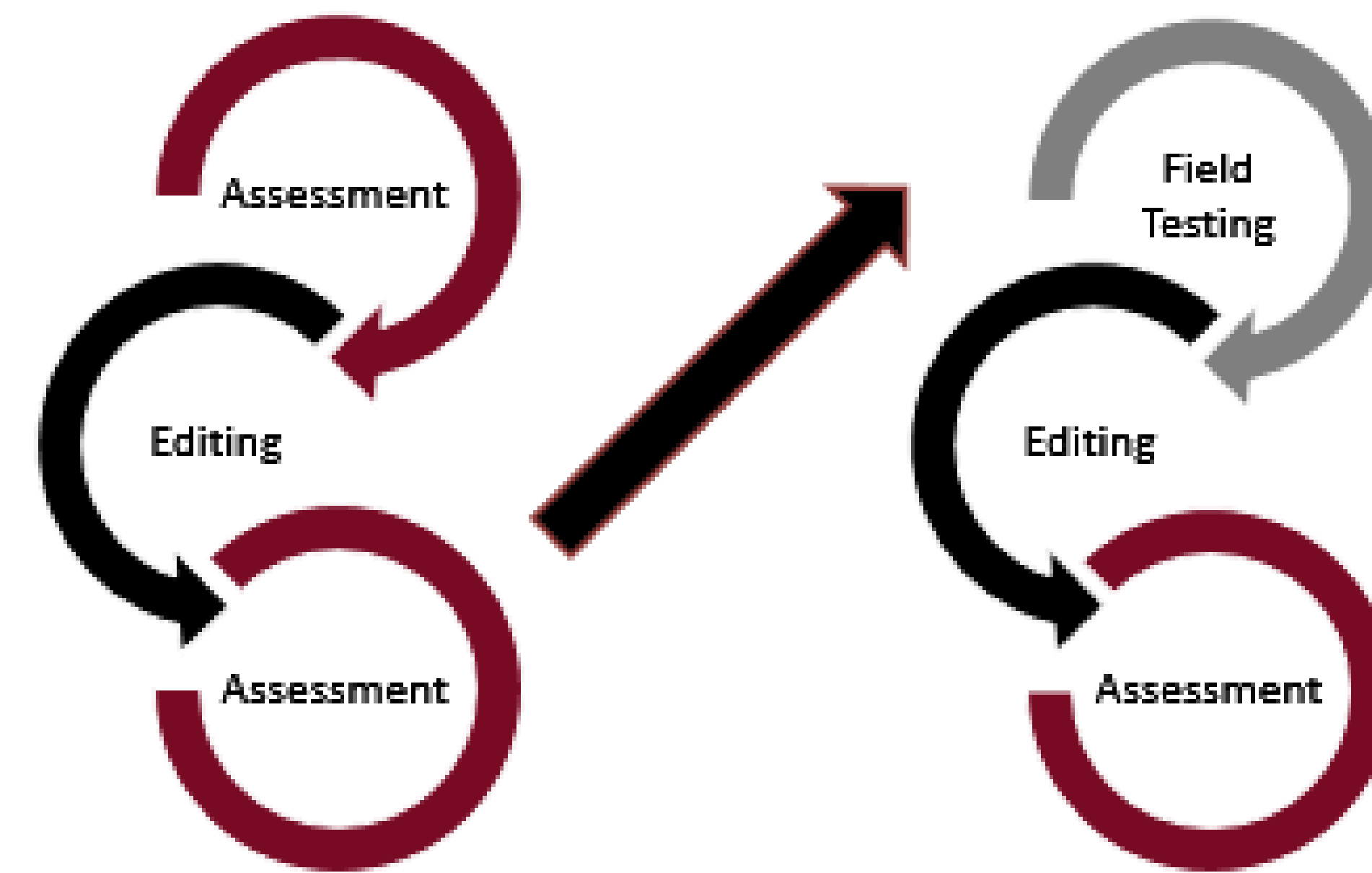


The team conducted a focus group which included individuals at risk for inadequate health literacy. A trained facilitator used UAMS CHL’s innovative “stoplight coding” questions⁶ to solicit feedback on content clarity, selected questions from the Patient Education Materials Assessment Tool (PEMAT)⁷ to 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)

You are at Risk for Falling: Help Us Keep You Safe

You are at risk for falling. This sheet explains:

- What you are doing to lower your risk for falling
- What you can do to lower your risk for falling

Why am I at Risk for Falling?

All patients in the hospital have some risk for falls. Even if you do not feel any different, you are still at risk.

These are some things that may put you at risk:

- Recent falls
- Older age
- Vision problems
- Depression or anxiety
- Addiction
- Problems with:
 - Memory
 - How well you are thinking
 - How well you are walking on your own
 - Dizziness
 - Weakness
- Bowel or bladder problems
 - Needing to use the restroom a lot
 - Not being able to control bowel or bladder
- Stomach problems
 - Upset stomach
 - Vomiting
- Some medications (meds)
- Not eating for more than 24 hours (1 day)
- Your result from some lab tests, such as low blood sugar

What Could Happen if I Fall?

If you fall, you could have these problems:

- It takes longer for you to heal from your current health problems
- It takes longer for you to get back to your normal activities
- A bad injury (such as a broken hip or bleeding in the brain)

What Can I Do to Keep Myself Safe?

Call for help [whenever](#) you need to get up. Call for help:

- Even for short trips, including going to the bedside toilet
- When you are finished using the toilet or bedside toilet and need to return to your bed

The staff wants to help you stay safe. Use your nurse call button to ask for help getting up.

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Cómo Prevenir las Caídas en Casa

Estas son algunas cosas que usted puede hacer para mantenerse seguro:

Alrededor de la Casa	De estar Acostado a Ponerse de Pie	Caminando y Moviéndose Alrededor
<ul style="list-style-type: none">• Mire los lugares por donde camina en su casa. Está seguro de que:<ul style="list-style-type: none">○ No haya muebles en el camino○ No haya cables o cordones eléctricos en el camino (como aquellos de los aparatos o lámparas)• Quite las alfombras del área, o use resplando antideslizante.• Mantenga los pisos limpios, secos, y sin desorden.• Ponga calcamánias antideslizantes en el baño y en el piso de la ducha.• Ponga barras para sostenerse en el baño alrededor del inodoro y la ducha.• Use lentes de noche para darle luz desde su recámaras hacia el baño.• Use las barras/pasamanos, especialmente en las escaleras.• Mantenga la luz brillante en su casa.• Mantenga los cuartos frescos para reducir los riesgos.	<p>Nota: Si su tallo derecho es el más fuerte, levántese de la cama por ese lado.</p> <p>Siga estos pasos para ponerse de pie.</p> <ol style="list-style-type: none">1. Siéntese en el borde de la cama y deje colgar sus pies por un minuto antes de ponerse de pie.2. Mueva sus tobillos hacia arriba y hacia abajo para que circule su sangre.3. Mire hacia abajo (pero no se incline) y ponga su "nariz sobre los dedos de sus pies" antes de ponerse de pie. <p>4. Empujese de la cama o silla con sus brazos. No use un objeto para levantarse.</p> <p>5. Espere un minuto antes de empezar a caminar.</p>	<ul style="list-style-type: none">• Use zapatos que:<ul style="list-style-type: none">○ Le queden bien (no muy grandes, ni muy pequeños)○ Tengan suelas firmes, antideslizantes○ Tengan tacónes bajos• Tengan un respaldo seguro alrededor de sus talones• Si usted tiene un andador, bastón, o muletas:<ul style="list-style-type: none">○ Asegúrese de que esté en buenas condiciones.○ Úselos como su equipo de atención médica en la plaza.• Planee actividades físicas con ayuda durante el día.• Llame para que le ayuden a levantarse o a caminar si se siente débil o inestable.• Tome su tiempo dando la vuelta para caminar en otra dirección.• Mantenga las cosas al alcance de su mano para que usted no se tenga que inclinar o usar un banco/banquito.• Si usted tiene que usar un banco, con uno con pasamanos. No use sillas como escaleras.

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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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