Individualized, Multi-Media Materials in Spanish and English Help Seniors Manage Medications and Communicate with Clinician Team

Taking medications for chronic diseases can present challenges for older adults due to difficult-to-understand instructions. Patients are often unaware about the consequences of failing to take medications correctly. Researchers solicited the input of geographically and culturally diverse older patients to identify their concerns, challenges, and misperceptions about managing their medications. In turn, the multidisciplinary team developed easy-to-understand, culturally relevant, and clinically pertinent educational DVDs and brochures in both Spanish and English.

Featured Segments:

- Insomnia
- Depression
- Diabetes
- Heart Failure
- Blood Thinner (Warfarin)
- General Medication Management

Individualized DVDs and Brochures:

Five of the most prevalent conditions requiring medication were selected as topic segments. Content was developed to assure accuracy, simplicity (prepared for middle-school reading level), relevance (65 older individuals of ethnically diverse backgrounds presented compelling testimonials and/or clinical guidance), and a manageable amount of information. Best practices for self-management of a chronic disease, tips for taking medication as prescribed, strategies to manage side effects, potential for duplication in drug therapy, and tips on how to improve communication with clinician team—including doctors, nurses, and pharmacists—were featured. Guidance on general medication management was provided based on the complexity of the medication regimen. In addition, an appropriately sized pill box was provided to all participants. Most participants received three DVDs addressing 1) general medication management and insomnia, 2) depression, and 3) diabetes or heart failure and the blood thinner Warfarin as appropriate.

Patients found the content and format of the information to be helpful:

- More than 90 percent of patients reported the length of DVD segments and brochures to be "just right."
- Staggered receipt of DVD and brochures helped patients review and apply strategies provided.
- 48 percent of patients watched the DVDs more than once.
- 40 percent of patients reported sharing DVDs with family or friends.
- Patients reported significant changes in sleep knowledge, hygiene, and behaviors following viewing of the insomnia segment.

> *[The physician on the DVD] is not talking down to me, he is making sense.*
>
> PATIENT

A video highlighting this research team's innovative approach to generate culturally informed instructional multi-media guidance in Spanish and English for older adults to take medications as prescribed is available at *http://healthit.ahrq.gov/AHRQHealthITSuccessStoriesLapaneVideo*.

Project Title: Tailored DVD to Improve Medication Management for Low Literate Elderly Patients
Principal Investigator: Kate L. Lapane, PhD MS
Project Number: This project was supported by grant number R18 HS 017281
Final Report available at: *http://healthit.ahrq.gov/1R18HS017281Lapanefinalreport2010*

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Dr. Kate Lapane and her team at Virginia Commonwealth University, in collaboration with researchers at the University of Rhode Island and Memorial Hospital of Rhode Island, developed DVDs that are individually prepared based on an older adult's current medical condition, medication regimens, and preferred language (English or Spanish). The study included four of AHRQ's priority populations: older adults; individuals with special health care needs, including individuals with disabilities and individuals who need chronic or end-of-life care; racial and ethnic minority groups; and low-income groups.

> *While younger people may spend more time in front of a computer, older people are more likely to watch TV. Because DVDs can be watched on television or computer screens, they work for viewers on either side of the technical divide.*
>
> DR. KATE LAPANE

Defining the Communication Strategy: The research team analyzed available data and then conducted focus groups and administered surveys to groups of low-income, English-speaking seniors and Spanish-speaking seniors in Rhode Island, Massachusetts, and Virginia. The researchers wanted to understand how elderly patients make decisions about their medications and how to address their medication-management challenges. The final DVD topics were based on these findings, as was the decision to produce them in English and Spanish. Finally, the team conducted confirmatory focus groups to make sure they had made the right decisions.

Older adults are comfortable and familiar with DVDs because they watch TV. DVDs demonstrate procedures and concepts that might be difficult to explain in print, especially for lower-literacy audiences. DVDs are also more visually stimulating than traditional learning techniques and can increase the viewer's interest and learning retention.

The DVDs provide information about the diseases and explain the basics of medication adherence, and focus on reinforcing the patient's role in making decisions as part of their health care team. All content was developed with input from a multidisciplinary team that included doctors, pharmacists, and a medical anthropologist. The automated creation of the DVDs was designed to work with various medication data sources, including electronic medical record data, pharmacy data, and medication lists provided by patients.

Developing computer algorithms to individualize DVDs: The research team created computer algorithms for each DVD topic using electronic pharmacy transaction data or patient self-report medication information. Throughout each DVD, specific medications were referenced and segments relating to the use or non-use of those particular medications were inserted so that the DVDs were individualized for each patient.

Algorithms were developed with clinical input from team members and were tested to work with data from various sources. The researchers used free text of drug names (brand and generic) instead of specific drug coding systems to allow for use with any system. Two pharmacists conducted independent reviews of the coding of drug names to assure completeness of the algorithms. The team demonstrated "proof of concept" as the automation of the DVD generation process was implemented (demonstrating both the interface with the electronic medical record and the ability for self-reported data).

Demonstrating the need for reliable medication management information outside the medical visit: The focus groups and survey included questions from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) questionnaire. Participant responses to the CAHPS questions confirmed the need for

educational material to help consumers manage their medications. The majority of white and black participants in the focus groups felt that their physicians did not adequately explain their medications and the possible side effects, whereas most Latino participants felt that they had sufficient discussion about medications with their physicians. Further, among patients who viewed the DVDs and completed a followup assessment:

- Less than 20 percent of participants reported asking their doctor to explain their medicines at each visit.
- Even fewer (less than 10 percent) reported asking the doctor about side effects or telling the doctor about problems with their medications at each visit.
- Less than half (44 percent) of the participants reported telling their physician if they were taking medications as prescribed at each visit.

When you go to another specialist they [PCP and specialist] communicate, because you don t go to the specialist unless your primary doctor tells you."

I take it regularly Monday, Wednesday, Friday, so I figure you know, if I skip or didn t take it at all that would probably harm me. But as long as I keep taking it regularly I figure it s okay."

I d like him to talk to me period. He comes in with his little laptop, and of course someone else is taking my blood pressure and all that stuff. He looks at that. You re okay, and he s out the office.

Various focus group participants sharing their perceptions about medications and communication with their providers.

Focusing on clear messages in English and Spanish: Patients told the researchers that both the messaging and the design needed to be clear and easy to read. Vignettes and testimonials were particularly effective for delivery of key messages, and it was essential to use actors from different cultures and include doctors in white coats. A multi-ethnic, multilingual cast of 10 professional and 55 non-professional actors of varying ethnic backgrounds filmed in a variety of community locations including a pharmacy, physician practices, and private residences.

The development of the Spanish-language segments was particularly challenging because there are many regional variations in word meaning and idiomatic phrases. The team addressed these concerns by using more generic language that would be understood by the widest-possible range of Spanish-speaking older adults, and by ensuring that the scientific team was available on-site during filming to participate in ongoing script-revision discussions. Also, because direct translation from English to Spanish is not always culturally appropriate, the researchers concentrated on effective, rather than exactly translated, key messages.

Recursos en Español

Resources to help Spanish speaking patients communicate effectively with their providers are available at: *http://www.ahrq.gov/preguntas*

Favorable Response to the DVDs: Older viewers can relate to the testimonials, which feature actors portraying people like them who have problems with their medications. Viewers appreciate the health care professionals' advice about their diseases and medications. The overwhelming majority of patients reported that they needed the information on the DVDs, and they felt that length, timing, and supporting print materials were just right. These findings strongly indicate that intervention materials were well received, and suggest their potential to reach people in low-resourced, urban safety-net settings.

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