Interactive Kiosk Benefits Spanish-Speaking Patients

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New Orleans — Spanish-language users of a bilingual interactive computer program in an urgent care clinic reaped the most educational benefit from the system, a study has shown.

The program provided increased information dissemination among medically underserved populations.

Bonnie Leeman-Castillo said in a presentation at the annual meeting of the Society of General Internal Medicine.

During a 4-month period, 296 adults seeking treatment for acute respiratory symptoms at an urgent care facility in Denver were referred to a free-standing computer that housed an audiovisual education model of the Spanish and English languages.

The module prompted the patients to provide information about demographics, knowledge and attitudes about antibiotics and acute respiratory infections, reasons for seeking care for their illness, and a symptom inventory.

"The computer then suggested a likely diagnosis and focused on patient symptoms and provided information about how to best treat the illness," said Ms. Leeman-Castillo, a Ph.D. candidate in the Health and Behavioral Science Program at the University of Colorado at Denver.

Patients were asked to rate their experience with the program in terms of complexity, understanding, and usefulness. The main outcome measures, she said, were 'whether the patient learned something new about colds and flu and whether the patient trusted the computer information.'

With regard to demographics, 81% of the users were aged 18-44, 59% were female, 54% were Hispanic, 30% had household incomes of less than $10,000, and 16% completed the Spanish-language version of the module.

Patients who answered questions in Spanish were less likely to report prior computer experience and more likely to require help using the system. In terms of ease of use and understanding the computer messages, the differences between those who responded in English and Spanish were small but significant.

About 84% of those who responded in Spanish felt the system was easy to use, and 87% of those who answered in English said they understood the information, compared with 81% of the Spanish-speaking group.

After adjustment for patient demographic and computer module qualities, Spanish-language users were significantly more likely to report learning something new from the program and trusting the information, Ms. Leeman-Castillo said.

"Interestingly, we found that prior computer experience was a strong negative predictor of learning something new and trusting the information," she suggested.

Patients with prior computer experience had a decrease in the proportion of patients who reported learning something new and trusted the program information.

"This may reflect a tendency for patients who have more computer knowledge to select out of the program, " Ms. Leeman-Castillo said.

The study was supported by the AHRQ, the National Library of Medicine, and the National Institute of Minority Health and Health Disparities.

"A new direction in health care delivery is to develop interactive computer programs that specifically target key populations," she said.

"These programs can be developed in ways that maximize patient access and understanding of information about illness and treatment options."