

Technology meets society: New app helps seniors live better

November 20 2015

A new technological solution developed by researchers from the University of Notre Dame is aimed at enhancing the physical health, vitality and brain fitness of seniors residing in independent living communities.

One of the traditional challenges of these communities is how caretakers and nurses can provide support in an environment where they have many patients. Unlike many available apps for seniors that merely track data, this [app](#), developed by the University of Notre Dame's Interdisciplinary Center for Network Science and Applications (iCeNSA) and called eSeniorCare, creates a personalized socio-ecological construct around the senior. It not only helps empower and engage the seniors, but also provides a continuity of care allowing health workers to proactively reach out to at-risk seniors when they need help, while still allowing them to maintain their independence. Seniors can connect with care providers by sending concerns and questions as text or voice recordings.

A [physical health](#) component of the app allows seniors to track a variety of health goals. They can set goals, such as eating less fast food or drinking less caffeine, and maintain a record of various activities in support of such goals and send the records to resident health administrators for guidance, reflection and personal motivation.

The app also features medication scheduling and management, medication history, medication reminders and medication adherence. Medication reminders have textual, audio and video components.

Because the app is interactive, caretakers can see when medications aren't being taken correctly or renewed on time and can quickly intervene to remedy the problem.

One of eSeniorCare's most popular features with seniors is brain games designed to enhance cognitive health and avoid impairment of mental function. A variety of crossword and Sudoku puzzles and other games provide the opportunity for mental stimulation.

As might be expected, when seniors first begin using the tablet app, there is a degree of trepidation. However, they quickly become not just comfortable with technology but also enthusiastic about using it. This transition is being further helped by pairing seniors with high school students as they are first learning how to use the app.

In collaboration with Beacon Health System, eSeniorCare was first rolled out at two senior independent living facilities in South Bend. In a pilot study following implementation of the app, the researchers tracked the medication management component for three months and the daily activities component for seven months. They found that seniors' technology comfort and literacy increased, and one participant saw a decrease in depression risk. There was also an increase in interpersonal interactions among all participants.

"eSeniorCare empowers our residents to maintain their independence by providing a framework for medication, nutrition and pain management," Kimberly Green Reeves, community benefit investment coordinator for the Beacon Health System, said. "It fosters productivity by giving them the opportunity to track their goals, with encouragement along the way. The eSeniorCare portal has the potential to increase access and communication between our staff and the senior residents by providing real-time feedback on health data, self-reported by the [seniors](#), so that their needs are addressed in a timely manner. Ultimately, eSeniorCare

helps sustain and support independent living and the well-being of elderly residents with limited income."

In a second pilot study currently underway at additional independent living communities, the researchers are tracking the brain games, activity and health data and medication components of the app. Their initial results reveal high engagement with [brain games](#); patients reporting a sense of purpose and increase in mental stimulation; and the use of the communication component to connect with care providers and maintain positive relationships.

"It is about personalized [health](#) care," Nitesh Chawla, director of iCeNSA, said. "It is about the individual. It is about how we can bring data and technology together to help empower the aging population to live healthy, independent, social and productive lives. It is about making a difference."

The app is being pilot tested at senior independent living facilities in the South Bend area and is not yet available to the general public.

Provided by University of Notre Dame

Citation: Technology meets society: New app helps seniors live better (2015, November 20) retrieved 6 May 2024 from <https://medicalxpress.com/news/2015-11-technology-society-app-seniors.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--