

App promises to improve pain management for dementia patients

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University of Alberta computing scientists are developing an app to help health-care staff assess and manage pain in patients with dementia and other neurodegenerative diseases.



"The challenge with understanding <u>pain</u> in patients with <u>dementia</u> is that the expressions of pain in these individuals are often mistaken for <u>psychiatric problems</u>," said Eleni Stroulia, who co-leads the project. "So we asked, how can we use technology to better understand the pain of people with dementia?"

The app will digitize a pen-and-paper observational checklist that past research has shown helps <u>health-care workers</u>, such as nurses, assess pain in their patients suffering from dementia.

"Our work is to develop an application for nurses to use, as well as a back-end repository that stores and manages this data safely," explained Stroulia. "This new research demonstrates the promising results from our initial trial."

In the trial, researchers compared the digital app on a tablet with the traditional pen-and-paper assessment. They found that nurses preferred to use the app with patients, and even reported that it helped them feel less stressed and burned out.

The researchers are now working to build an app that can be adopted more widely.

Stroulia noted that the app will allow health-care workers to see more quickly whether pain management techniques are working or not, with individual patients.

On a broader scale, widespread use of the tool could help improve the quality and efficacy of care for patients with dementia, she added.

"When we have this kind of data, we can build models to understand the impact of different interventions," said Stroulia. "This is what can change policy and care in the long term—evidence-based policy that



changes the state of how we practise medicine."

Along with Stroulia, the project is led by Thomas Hadjistavropoulos at the University of Regina as part of AGE-WELL, a national network that aims to help older Canadians maintain their independence, health and quality of life through accessible technologies.

The study, "Behavioral Pain Assessment Implementation in Long-Term Care Using a Tablet App: Case Series and Quasi-experimental Design," was published in *JMIR mHealth and uHealth*.

More information: Mahnoor Zahid et al. Behavioral Pain Assessment Implementation in Long-Term Care Using a Tablet App: Case Series and Quasi-Experimental Design, *JMIR mHealth and uHealth* (2020). DOI: 10.2196/17108

Provided by University of Alberta

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