Health Psychology in the News:
Innovative technologies improve pain care in older adults with dementia

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Pain is frequently under-assessed, undermanaged, and undertreated in older adults with dementia. The cognitive impairments associated with dementia likely contribute to the problem as they often limit seniors' ability to effectively communicate their pain experience. Recently featured in the Globe and Mail[1], a Canadian research team is gaining media attention for their work that aims to improve pain management in individuals with dementia through the use of innovative technologies.

Hadjistavropoulos preparing a participant for testing.
Courtesy: Debra Marshall for SHRF

Federally funded through the AGE-WELL Network and co-led by Dr. Thomas Hadjistavropoulos, Research Chair in Aging and Health at the University of Regina, this research includes work toward the development of an automated computer vision system that will alert nursing staff when significant pain behaviours are detected in long-term care (LTC) facilities. Hadjistavropoulos and his collaborators, including experts in computer vision and engineering, plan to test a prototype of this system in a laboratory setting within the next year.

Hadjistavropoulos' team, in collaboration with University of Alberta computer scientist Eleni Stroulia, is also working on the creation of an app version of the Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC-II), a tool that was developed in Hadjistavropoulos' lab in collaboration with graduate students Sarah Chan and Shannon Fuchs-Lacelle. The PACSLAC-II aids clinicians in the assessment of pain among seniors with severe dementia. According to Hadjistavropoulos, nursing staff prefer an app version of the tool because they can easily track and compare each patient's pain behaviours over time without the need for time-consuming chart reviews and recording. So far, initial tests in the field suggest the technology has been well-received by front line staff.

Though he believes that many of the solutions to current challenges associated with aging will come from technology and engineering Hadjistavropoulos warns that developing new technologies is only part of the solution to improving care: "The gap between research and implementation is very wide and can take an average of 17 years until clinically important research findings find their way into widespread practice." Aiming to close that gap, the research team has several ongoing knowledge translation initiatives including web-based training on pain assessment continuing education for long-term care facility staff.

With the aim of increasing awareness of the problem of pain under-management in people with dementia and uptake of evidence-based practices, Hadjistavropoulos, along with partnering organizations (e.g., AGE WELL NCE, Canadian Association on Gerontology), stakeholders, and health professionals, have also recently launched a large-scale initiative via social media; #SeePainMoreClearly. As part of the initiative, they have prepared an engaging informational video titled "Pain in Dementia #SeePainMoreClearly" www.seepainmoreclearly.org. During the first two weeks of the campaign, the initiative received over 2 million impressions on Twitter.

In Hadjistavropoulos' view, these initiatives are part of a growing movement that has broad implications for health care research: "With the advent of technology and social media, health care is in a period of paradigmatic shift in the types of solutions that are becoming available. As an example, technological advances, like self-driving vehicles, will increase the freedom of those who can no longer drive due to sensory and/or cognitive impairments."

[1]Leung, W. (2019, June 16). Facial-recognition technology may help detect pain in patients with severe dementia. *The Globe and Mail*. Retrieved from https://www.theglobeandmail.com/