

# Cognitive screen reveals dementia risk

July 8 2024

---



Credit: Alex Green from Pexels

A new self-reporting tool developed by Murdoch University is set to transform the early detection and management of Alzheimer's disease and other forms of dementia.

Published today in [Age and Ageing](#), the McCusker Subjective Cognitive

Impairment Inventory (McSCI; pronounced "mack-see") is the culmination of more than a decade of research led by Professor of Psychology and Clinical Neuroscience Hamid Sohrabi at the Center for Healthy Aging, part of Murdoch's Health Futures Institute.

Professor Sohrabi collaborated with Professor Ralph Martins AO, Director of Research at Alzheimer's Research Australia, and colleagues from Edith Cowan University, Macquarie University and the University of Western Australia on the work.

"The McSCI is a major contribution to the field of cognitive health and [dementia screening](#). It can identify individuals with moderate to severe levels of subjective [cognitive decline](#) (SCD) with 99.9% accuracy," Professor Sohrabi said.

The 46-item, self-report questionnaire evaluates concerns across six cognitive domains: memory, language, orientation, attention and concentration, visuoconstruction abilities, and executive function.

Importantly, the tool will be Open Access, meaning no cost to clinicians or researchers. It is Professor Sohrabi's hope that using the McSCI will become commonplace for early dementia screening.

"This tool is particularly useful for detecting cognitive decline related to neurodegenerative processes, such as the preclinical stages of Alzheimer's disease," he said.

The key to managing Alzheimer's disease is to get onto it quickly, according to Professor Martins.

"Early diagnosis of Alzheimer's is essential for treatments to be effective—McSCI is a powerful tool to screen individuals at high risk of Alzheimer's and dementia," he said.

Of the more than 421,000 Australians living with dementia today, Alzheimer's disease is the most commonly diagnosed form of dementia in older adults.

Recent advances in immunotherapies, specifically the FDA-approved drugs Lecanemab and Donanemab, suggest that the earlier Alzheimer's is detected, the more effective the treatment. But the early signs of dementia can be very subtle, and they differ from person to person.

According to Dementia Australia, the most common early signs of dementia include, but are not limited to, memory loss, changes in planning and problem-solving abilities and difficulties in completing everyday tasks.

The McSCI can accurately distinguish between these pre-clinical experiences of cognitive decline and the experiences reported in clinical stages of dementia, therefore serving better in detecting those at risk of, rather than those with dementia.

Alzheimer's Research Australia Chief Executive Officer Professor Vicky Vass congratulated Professor Sohrabi and his team.

"We are delighted to have supported this game-changing research. The McSCI is a significant leap forward in the early detection and management of dementia, offering immense promise for those at risk. This tool will undoubtedly make a substantial impact on cognitive health screening and provide hope for countless individuals and their families," she said.

Although several other SCD measures exist, there has been little consensus on their usefulness. With Australia's aging population, and 1 million people expected to be living with dementia in 2050, the need for an accurate, reliable SCD test is urgent.

"The McSCI will eliminate the guessing game for clinicians and will give peace of mind to individuals and their families," Professor Sohrabi said.

"Imagine if you could predict your risk for dementia well before it takes hold, and you could start treatment and stop the disease from progressing?"

"The McSCI makes the first step of such prediction possible which will result in savings in time, money and health system resources."

**More information:** Hamid R Sohrabi et al, The McCusker Subjective Cognitive Impairment Inventory (McSCI): a novel measure of perceived cognitive decline, *Age and Ageing* (2024). [DOI: 10.1093/ageing/afae138](https://doi.org/10.1093/ageing/afae138)

Provided by Murdoch University

Citation: Cognitive screen reveals dementia risk (2024, July 8) retrieved 8 July 2024 from <https://medicalxpress.com/news/2024-07-cognitive-screen-reveals-dementia.html>

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.