Medical Xpress

Banking behavior could be used to detect early Alzheimer's, finds new research

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Alzheimer's Disease can be detected years in advance of a clinical diagnosis by monitoring how people manage their finances, according to new research.

Using AI modeling to examine banking behavior, researchers at University College Dublin and National University of Ireland, Maynooth

found that 71% of individuals with the condition and Related Dementias (ADRD) could be identified up to four years earlier when money management difficulties were considered alongside lead indicators such as age, education, health and gender.

"For individuals living in a single person household, this rate rises to 92%," said Professor Cal Muckley, from UCD College of Business, who carried out the study with Shivam Agarwal, Assistant Professor from Maynooth University.

"Also, relative to other lead indicators, excluding age, money management difficulties are ranked the most important lead indicator of a clinical diagnosis of dementia."

Dementia is a syndrome caused by a number of diseases, including Alzheimer's, that causes damage to brain cells, which typically leads to a deterioration in cognitive function.

More than 64,000 people in Ireland live with dementia and this figure is expected to increase to 141,200 people by 2050.

This new study is the first to show the importance of money management difficulties when it comes to predicting dementia.

ADRD are often diagnosed too late and their early-stages, before a [clinical diagnosis](link), can be a vulnerable period were financial mistakes and abuse go unnoticed.

This can lead to individuals falling victim to scams and missed payments on credit accounts, among other financial decisions that can have detrimental impact.

As financial institutions have a duty of care to protect their customers,

the authors of the new study demonstrate that those organizations with insight into how older customers manage their money are uniquely positioned to identify who might be in a vulnerable situation due to early-stage dementia.

Banks could use this data to enhance their protection of customers with dementia, and to inform a trusted nominee about suspected early signs of dementia in cases of money management difficulties.

  More information: Shivam Agarwal et al, Money Management Difficulties and Older People: Detection of Early-stage Dementia in Financial Data, *SSRN Electronic Journal* (2024). DOI: 10.2139/ssrn.4785764

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