



Dementia

Dementia risk study finds 11 key factors behind condition

Predictive tool 'significantly outperforms' others available and could help avert about 40% of cases

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Scientists have identified 11 risk factors for dementia and used them to develop a tool that can predict whether someone will develop the condition in the next 14 years.

The number of people living with dementia globally is forecast to nearly triple to 153 million by 2050, and experts have said that it presents a rapidly growing threat to future health and social care systems. But targeting key risk factors, several of which involve lifestyle, could avert about 40% of cases.

A new dementia risk score, drawing on 11 mostly modifiable risk factors, can identify people at risk - from mid-life onwards - of developing the disease within the next 14 years. The findings were [published in the open access journal BMJ Mental Health](#).

The research, led by the University of Oxford, examined data on people aged 50 to 73 taking part in two large long-term British studies - the UK Biobank study and the Whitehall II study.

In the UK Biobank study, 220,762 people with an average age of 60 were examined to develop the risk-assessment tool, and 2,934 people with an average age of 57 from the Whitehall II study helped to validate it.

Researchers compiled a list of 28 known factors linked to dementia risk and then identified the strongest predictors. This produced a list of 11 predictive factors, which were then used to develop the UK Biobank **Dementia** Risk Score (UKBDRS) tool.

The 11 factors are age, education, a history of diabetes, a history of depression, a history of stroke, parental history of dementia, levels of deprivation, high blood pressure, high cholesterol, living alone and being male.

Researchers also examined these risk factors alongside whether or not people carried a specific gene - the APOE gene, which is a known risk factor for dementia. This risk tool was called the UKBDRS-APOE tool.

They found that UKBDRS-APOE produced the highest predictive score, closely followed by the UKBDRS risk tool. The researchers said that the tool “significantly outperforms” similar other risk assessments currently available.

As well as identifying those at risk, these tools can also highlight preventive measures people can take while it is still possible.

The academics point to previous work that suggests up to 40% of dementia cases could be prevented through modifying certain lifestyle factors, such as stopping smoking, reducing high blood pressure, losing weight and reducing alcohol intake.

The new tool could be used as an initial screening tool for dementia to put people in “risk groups”, they said.

Those who come back with a high probability of developing dementia, according to the risk score, could be prioritised for further tests including cognitive assessments, brain scans and blood tests.

“The UKBDRS may best be used as an initial screening tool to stratify people into risk groups, and those identified as high risk could then benefit from the more time-intensive follow-up assessments described above for more detailed characterisation,” said the lead author, Dr Raihaan Patel, from the University of Oxford.

Associate professor Sana Suri from the University of Oxford, a co-lead author, added: “It’s important to remember that this risk score only tells us about our chances of

developing dementia; it doesn't represent a definitive outcome.

“The importance of each risk factor varies and given that some of the factors included in the score can be modified or treated, there are things we can all do to help reduce our risk of dementia.

“While older age (60 and above) and APOE confer the greatest risk, modifiable factors, such as diabetes, depression, and high blood pressure also have a key role. For example, the estimated risk for a person with all of these will be approximately three times higher than that of a person of the same age who doesn't have any.”

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