New study indicates sight problems may increase dementia risk in older adults
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Older adults with untreated sight conditions may be at increased risk of dementia, according to a new systematic review and meta-analysis of 16 studies involving 76,373 participants.

The results of the study, published in the peer-reviewed journal Aging and Mental Health, highlight a need for further research to examine the impact of correcting sight problems in older adults—for example, with glasses or cataract surgery—to prevent cognitive problems and dementia.

"This study is among the first to evaluate the association between sight problems and cognitive outcomes in older adults through a comprehensive examination of all available population-based studies in English. Our findings add to the growing evidence that fading eyesight is a risk factor for developing dementia," said lead author, Associate Professor Beibei Xu, from the Medical Informatics Center, at Peking University. "Although the reasons behind this remain unclear, it suggests that diagnosing and treating eye conditions may be beneficial—both to improve a person's quality of life and also to potentially slow down or stop memory loss."

Nearly 1 million people are estimated to be living with dementia in the U.K.—and that number is set to increase over the next few decades as the population ages. By 2050, it is predicted that this figure will have jumped to 1.6 million. The cost of dementia is expected to almost double in the same timeframe, from £25bn today to £47bn in 2050. The disease has a devastating impact on people's lives. As their disease progresses, they will experience greater memory loss and changes to their personality and behavior. Ultimately, they will become completely dependent on others for their care.

The researchers included 16 studies including 76,373 participants, with five cross-sectional studies and 11 longitudinal studies published before April 2020. From these studies, the authors examined the relationship between visual impairment and cognitive outcomes in older adults. They found that:

- People with a sight problem had an increased risk of cognitive impairment and dementia, regardless of whether their visual impairment was self-reported or diagnosed using objective measures.
- The likelihood of having a cognitive impairment was 137% higher among people who had a sight problem compared to those who did not.
- People who had a sight problem at baseline had a 41% increased risk of developing cognitive impairment and a 44% increased risk of dementia, compared with those who did not.

"Finding ways to prevent or delay the onset of dementia could help reduce its devastating impact on the lives of affected individuals and their families, especially in light of the growing burden of
the disease. Identifying modifiable risk factors is the first critical step for developing effective interventions to achieve this goal," says Beibei Xu. "Our new results highlight the importance of regular eye examinations for older adults—enabling any potential problems with their vision to be spotted and treated early. They also suggest that any self-reported changes to a person's eyesight should not be ignored."

The authors (Gui-Ying Cao, Zi-Shuo Chen, Shan-Shan Yao, Kaipeng Wang, Zi-Ting Huang, He-Xuan Su, Yan Luo, Carson M De Fries, Yong-Hua Hu, and Beibei Xu) recommend future research is now warranted to examine the effectiveness of treating sight problems in older people to prevent cognitive impairment and dementia.


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