

Game show app may slow dementia

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A "brain training" game can reduce forgetfulness among people at risk of dementia, according to a study that offers fresh evidence of the benefits of keeping mentally active.

People in late middle age who used the Game Show app regularly improved their memory score by 40 per cent and made fewer errors than those who did not, the trial found.

The Cambridge scientists who developed the iPad game said it could be a fun way for people to protect their brains, but it has not yet been shown to prevent dementia.

More than 200,000 people in Britain develop dementia each year and there is no treatment, forcing doctors to focus on preventing and slowing the disease.

Brain training has shown promise in the earliest stages of dementia, but

patients have said that the regimes are boring. The new app gets patients to play as contestants on a TV game show, with rewards for remembering where they have seen geometric patterns.

In a trial of 42 patients with memory problems suggesting the early stages of dementia, those who played the game twice a week performed significantly better in cognitive tests after a month than those in a control group, making only two thirds as many errors.

Barbara Sahakian, who developed the game, said: "Our game allowed us to individualise a patient's cognitive training programme and make it fun and enjoyable for them to use."

Tara Spire-Jones, interim director of the centre for cognitive and neural systems at the University of Edinburgh, said: "While this type of brain training will not ultimately be able to prevent or cure memory diseases like dementia,

they are a promising way to improve early memory symptoms. Activities that engage your brain ... increase connections between brain cells. More connections provide what is called a cognitive reserve, and make the brain able to withstand the damage caused by diseases like Alzheimer's for longer."

However, James Pickett, head of research at the Alzheimer's Society, said the study could not tell what would happen in the long term. "The games used in studies like this one are specially designed by expert researchers," he said. "We cannot extend the results of this study to apply to other brain training games and the public should be cautious about claims on some games that promise memory benefits, as these are often not backed up by evidence."

The results were reported in *The International Journal of Neuropsychopharmacology*.

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