# Women with Alzheimer's lose their verbal communication skills quicker than men

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Credit: University of Hertfordshire

A new research review, conducted by academics at the University of Hertfordshire, has identified that the cognitive areas where women usually have the upper hand over men, such as verbal communication, are those quickest to decline in women as the Alzheimer's disease progresses.

The study's findings have been published in the March issue of the journal *Current Opinions in Psychiatry*. The study follows on from previous research by paper author Dr. Keith Laws which revealed that women had more cognitive deterioration at the same stage of Alzheimer's than men. In the current study Dr. Laws analysed 298 articles published between 2016 and 2017 reviewing the disparity between the sexes in relation to areas where cognitive decline is greater in women and the factors contributing to this decline.

The emerging evidence consistently shows that women suffer significantly greater cognitive impairment across a wide range of cognitive domains including both visual and verbal processing, as well as memory.

## 'Even small effects may have important consequences'

Keith Laws, Professor of Cognitive Neuropsychology at the University of Hertfordshire, said: 'Men and women at high genetic risk of Alzheimer's disease may share some resilience factors; however, sex-specific resilience factors also exist and may have implications for different care strategies to ameliorate cognitive decline. Even small effects may have important consequences for how men and women might require more sex-specific approaches to their treatment and care.'

'In terms of sex-specific resilience, women benefit from being married, living with a partner, lower BMI and alcohol use; while for men something as seemingly random as 'pet ownership' can aid resilience, presumably because it is also linked to exercise. There are also some common factors that are protective to both sexes – including doing puzzles and crosswords, and their education.'

## A variety of reasons why women may be more

## adversely affected by Alzheimer's than men

The previous research identified a variety of reasons as to why women may be more adversely affected by Alzheimer's than men. Some researchers argue that it's due to a reduction of oestrogen in postmenopausal women—the menopause diminishes cognitive functions such as memory, which is subsequently compounded by Alzheimer's.

Another possibility concerns the fact that men have traditionally spent more time in work, and this activity may give them greater 'cognitive reserve', enabling them to better resist the impact of the illness. Another theory relates to a specific gene (APOE 4) which has been linked to Alzheimer's. Women are more likely to be carriers of this gene which is linked to cognitive decline and memory problems even in healthy individuals.

Alzheimer's is the most common neurodegenerative disease associated with ageing. There are around 30 million people with dementia worldwide, 4.6 million new cases annually, and one new case every 7 seconds. It results in progressive degeneration and death of nerve cells, causing a decline in cognition and memory functions. Many patients are left unable to perform simple, everyday tasks. Women are significantly more at risk of developing Alzheimer's than men and this discrepancy increases with age.

**More information:** Sex differences in Alzheimer's disease. *Current Opinions in Psychiatry*. DOI: 10.1097/YCO.0000000000000401

Provided by University of Hertfordshire