

Scientists link frequent use of sleep medication with changes to risk of developing dementia

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Many older adults who have trouble sleeping take medication to help them sleep. New research, presented at the Alzheimer's Association

International Conference 2019, suggests certain groups of people who take sleep medication may be at a higher risk of developing dementia.

Two different studies have investigated the link between [sleep medication](#) and risk of developing [dementia](#). One examines the difference between people from white and African American backgrounds, the other compares men and women who take sleep [medication](#).

In the first study by researchers at the University of California, San Francisco, participants aged 70 to 79 were asked to indicate how frequently they took sleep medications. A total of 172 people reported taking sleep medication over five times a month. Over fifteen years the scientists used [medical records](#) and memory and thinking assessments to determine whether participants developed dementia. The researchers adjusted for environmental and lifestyle factors as well as the APOE4 Alzheimer's risk gene. They then compared the results for people from different racial backgrounds, and different genders.

The researchers found that in people taking sleep medications five to thirty times a month, [white people](#) are at a 79% [higher risk](#) while black people were less at risk of developing dementia. There was no increase in risk for people who sometimes took sleep medication. When comparing men with women the researches did not see any difference.

The second study looked at the difference in the risk of Alzheimer's disease in men and women over the age of 65 who did not have dementia at the beginning of the study. Participants were asked whether they took sleep medication and underwent screenings for dementia once every three years for 12 years.

Using sleep medication was associated with an increased risk of developing dementia in men. In women, the results depended on whether

they experienced sleep disturbance. Women who reported having disturbed sleep and took sleep medications were at a four times greater risk. By contrast, women who did not have disturbed sleep and used sleep medications had a reduced risk of developing Alzheimer's.

Dr. Sara Imarisio, Head of Research at Alzheimer's Research UK, said:

"While previous research has highlighted a potential link between a particular class of sleep medication and dementia risk, these studies looked at lots of different types of sleep medication that work in different ways.

"The findings don't tell us whether using sleep medications increases the risk of dementia, whether underlying [sleep problems](#) might be driving increased risk, or whether other factors may be at play.

"The findings highlight potential differences in the relationship between sleep medications and dementia in men and women and between racial groups. It is important for scientists to explore how medications may affect different groups of people so that people receive the treatments that are right for them.

"Anyone who is experiencing sleep problems or who has questions about their sleep medication should speak to their doctor."

Two approaches to treating sleep problems in people living with dementia

New research into a potential drug treatment and personalised behavioural therapy for sleep disruption in people with dementia was presented at the Alzheimer's Association International Conference 2019 today (Monday 15 July).

Sleep problems are a common symptom of dementia. People who are diagnosed with Alzheimer's disease and other dementias are more likely to wake up during the night and become restless when they are awake. This symptom of dementia can also have a significant impact on those caring for people diagnosed with dementia.

A small pilot study was carried out by an international team of researchers, who worked with 62 people aged between 60 and 90 years old in the early stages of Alzheimer's disease. The participants, who had irregular sleep patterns, were given different doses of the drug lemborexant or a placebo. Lemborexant is being developed for the treatment of insomnia in the general population but this research focussed on sleep problems experience by people with Alzheimer's.

The participants' sleep was monitored using a wearable device and caregivers reported sleep patterns to researchers through a daily diary. The researchers looked at how fragmented the participant's sleep was and the total time spent asleep.

They found that participants receiving 5mg and 15mg of lemborexant were less active at night than people who received the placebo. The researchers also recorded less fragmented sleep and higher total sleep times in these two groups compared to the placebo.

In the second study, scientists used behavioural training to try to improve sleep quality and cognitive function in people with mild cognitive impairment. Those randomly selected for 24 weeks of treatment attended classes, received individual physical activity advice and took part in 20 weeks of bright light therapy. Scientists assessed sleep quality using an activity monitor and through a sleep quality questionnaire.

Data collected from the activity monitor showed that the group receiving the behavioural therapy had a higher quality of sleep after 12 weeks. The

results of the questionnaire showed that after 24 weeks the participants reported improvements in sleep quality compared to the control group.

Dr. Sara Imarisio, Head of Research at Alzheimer's Research UK, said:

"A bad night's sleep can dull our thinking, make it hard to concentrate, and have a negative effect on our general wellbeing.

"Sleep problems are particularly common in people living with dementia, and treating this symptom presents a valuable opportunity to improve their quality of life.

"While these treatments seem to improve sleep quality in people with memory and thinking problems, larger and longer trials will need to determine whether these approaches could have wider benefits for people living with dementia."

Provided by Alzheimer's Research UK

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