Link between schizophrenia and sleep apnoea

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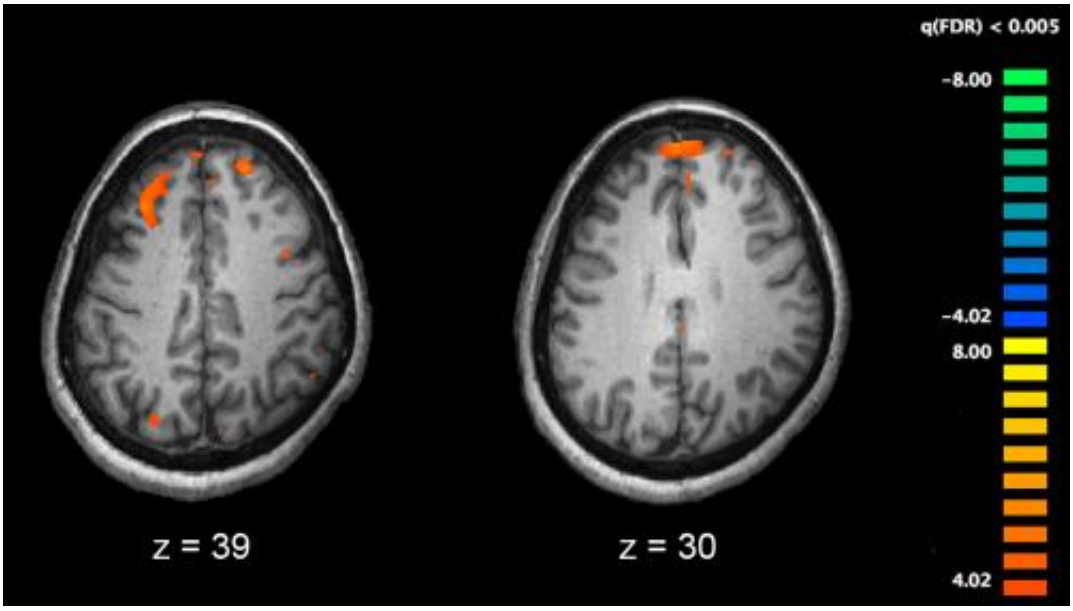

Functional magnetic resonance imaging (fMRI) and other brain imaging technologies allow for the study of differences in brain activity in people diagnosed with schizophrenia. The image shows two levels of the brain, with areas that were more active in healthy controls than in schizophrenia patients shown in orange, during an fMRI study of working memory. Credit: Kim J, Matthews NL, Park S./PLoS One.

New University of Adelaide research at the Lyell McEwin Hospital has shown that people with schizophrenia are 3.4 times more likely to have severe obstructive sleep apnoea than people without.

The study, which incorporated home sleep studies on 32 patients with

schizophrenia, is the first of its kind worldwide to confirm a link between schizophrenia and obstructive sleep apnoea.

Northern Adelaide Local Health Network Senior Consultant Psychiatrist and University of Adelaide Professor Cherrie Galletly said most patients with schizophrenia report difficulties with their sleep.

"People with schizophrenia have much higher rates of physical illness like diabetes, obesity and high blood pressure, and this causes a 17-20 year reduction in their life expectancy," Professor Galletly said.

"Despite these illnesses being closely linked with obstructive sleep apnoea, the rates of this disorder and the benefits of treating it in this population are unknown.

"People with obstructive sleep apnoea also have high rates of heart disease, depression and poor memory, so obstructive sleep apnoea may be causing these problems in many people with schizophrenia, but no one is aware of this."

The study is examining the acceptability and effectiveness of continuous positive airway pressure to treat people with schizophrenia and severe sleep apnoea.

University of Adelaide PhD student Dr Hannah Myles said the treatment uses mild air pressure to keep the airways open.

"Obstructive sleep apnoea is often treated with continuous positive airway pressure but there are no studies that have investigated whether people with schizophrenia would be able to use this treatment, or if it would work to improve their obstructive sleep apnoea, memory, depressed moods, and physical health problems," Dr Myles said.

"Our study is the first in the world to demonstrate that people with schizophrenia will accept the diagnostic methods used to identify obstructive sleep apnoea, and will tolerate the continuous positive airway pressure therapy.

"So far six participants have received this treatment, all with positive results."

The study found continuous positive airway pressure improved the severity of obstructive sleep apnoea, memory and the physical health of participants; it has also helped to restore normal brain activity during sleep.

"The most exciting and unexpected result was that after six months of treatment, participants lost on average 13.6 kilograms," Dr Myles said.

"This provides hope that continuous positive airway pressure may be a new way to help treat the physical health of people with schizophrenia."

The study gives evidence that patients with schizophrenia are able to tolerate the test and this kind of therapy.

More information: H. Myles et al. How long will we sleep on obstructive sleep apnoea in schizophrenia?, *Australian & New Zealand Journal of Psychiatry* (2016). DOI: 10.1177/0004867416662919

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