

B-group vitamins can improve concentration among people with first episode psychosis

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B-group vitamins may be beneficial for maintaining concentration skills among people experiencing a first episode of psychosis, a study by researchers from Orygen, the National Centre of Excellence in Youth Mental Health, has found.

The study, led by Dr. Colin O'Donnell, now at Letterkenny University Hospital, and Dr. Kelly Allott from Orygen, explored the impact of increasing a person's intake of vitamins B12, B6, and folic acid [vitamin B9] after studies in people with schizophrenia revealed that increased intake of these vitamins could decrease patients' levels of an amino acid called homocysteine and improve their symptoms.

Dr. Allott said elevated levels of homocysteine in people living with schizophrenia had been associated with more severe symptoms. "Given previous studies have shown that increasing the intake of vitamin B12, B6, and [folic acid](#) decreases homocysteine levels and improves symptoms among people with schizophrenia, we wanted to find out whether giving these vitamins to people experiencing first episode psychosis would achieve similar results," she said.

A first episode of psychosis can be a precursor to developing schizophrenia but psychotic symptoms may also be associated with bipolar disorder or severe depression.

In the study 100 young people attending Orygen Youth Health's Early Psychosis Prevention and Intervention Centre (EPPIC) were randomly

assigned to receive either B-vitamin supplements or a placebo tablet once per day over 12 weeks. During this period, patients' homocysteine levels, symptoms and cognitive functioning (e.g., memory, attention, language, and learning abilities) were assessed.

The results have been published in the current issue of the journal *Biological Psychiatry*.

Dr. Allott said the results showed that participants who received the B-vitamin supplements performed better in completing concentration and attention tasks over the 12 weeks than the participants who received placebo.

"This indicates the B-vitamins could have a neuroprotective effect; although they are not improving a patient's [concentration skills](#), they may be protecting these skills from declining," Dr. Allott said.

"Psychosis is a diverse condition where everybody presents with different symptoms and a different biological profile. What was particularly interesting was that the participants who had abnormally high homocysteine levels at baseline were most responsive to the B-vitamin supplements, in terms of improvement in attention. The results of this study support a more personalised approach to [vitamin](#) supplementation in first episode psychosis, suggesting those with elevated [homocysteine](#) are likely to benefit most."

More information: Kelly Allott et al. The Vitamins in Psychosis Study: A randomized, double-blind, placebo-controlled trial of the effects of vitamin B12, B6 and folic acid on symptoms and neurocognition in first-episode psychosis, *Biological Psychiatry* (2019). [DOI: 10.1016/j.biopsych.2018.12.018](https://doi.org/10.1016/j.biopsych.2018.12.018)

Provided by Orygen, the National Centre of Excellence in Youth Mental Health

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