

Nutrition may play a key role in early psychosis treatment

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Early psychosis is associated with nutritional deficiencies, new research from Australia has found, potentially presenting new avenues for improving health among the millions of people affected worldwide.

International research led by NICM Health Research Institute at Western Sydney University systematically reviewed evidence examining [nutritional deficiencies](#) in [people](#) being treated for [psychotic disorders](#) for the first time.

Early detection and treatment of psychotic [disorders](#), such as [schizophrenia](#), is thought to be critical for maximising recovery.

Schizophrenia affects more than 21 million people worldwide and people with the disorder die 15 - 20 years earlier than the general population.

Previous research has shown a strong correlation between long-term schizophrenia and various nutritional deficiencies including vitamins B, C, D, and E. However, until now, no one has assessed the full range of nutritional deficiencies which may be present during the first episode of psychosis.

The researchers assessed 28 studies examining [blood levels](#) of six vitamins and 10 minerals across 2612 individuals.

All participants were assessed either immediately after presenting with psychotic disorders (such as schizophrenia) for the first time, prior to antipsychotic treatment, or within the early stages of treatment.

The research, published in the world's leading schizophrenia research journal, *Schizophrenia Bulletin*, found that early psychosis is associated with large deficits in blood levels of critical nutrients, with particularly low levels of vitamin B9 (folate) and vitamin D.

Furthermore, these nutritional deficiencies were found to be associated with worse mental health in young people with early psychosis.

Although the review found no significant differences for other vitamins and minerals, the researchers said that due to a small number of studies that examined these nutrients, they could not be ruled out and further study was needed to determine their importance.

Lead author, NICM postdoctoral research fellow Joseph Firth said these findings could ultimately contribute to nutritional interventions being added into standard treatment of early psychosis.

"Although just one of many factors, it is important to recognise that nutritional deficiencies could certainly be contributing to the poor physical and mental health outcomes often observed in young people with psychosis," Firth said.

"Our research has found [vitamin](#) D and folate deficiencies, previously observed in long-term schizophrenia, exist right from illness onset, and are associated with worse symptoms among young people with psychosis.

"Since both of these nutrients are vital for physical and psychological wellbeing, this finding emphasises the importance of promoting a healthy diet for [young people](#) with psychosis, and potentially suggests adding targeted nutritional supplementation to standard [treatment](#) could improve recovery - although this theory has yet to be tested."

Senior author and deputy director at NICM, Professor Jerome Sarris says, "While the results of our data analysis reveal that nutrient deficiencies are endemic in people suffering from first-episode psychosis, further work is needed to determine whether this is a by-product of the disorder, an effect from psychiatric medications, or whether

lifestyle factors are to blame."

More information: Nutritional Deficiencies and Clinical Correlates in First-Episode Psychosis: A Systematic Review and Meta-analysis, *Schizophrenia Bulletin* (2017). [DOI: 10.1093/schbul/sbx162](https://doi.org/10.1093/schbul/sbx162)

Provided by Western Sydney University

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