

# Low vitamin D levels are associated with increased negative and depressive symptoms

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New research presented at this year's International Early Psychosis Association (IEPA) meeting in Milan, Italy (20-22 October) shows that low vitamin D status is associated with increased negative and depressive

symptoms in psychotic disorders. The research is by Dr Mari Nerhus, NORMENT Research Centre, Institute of Clinical Medicine, University of Oslo, Norway, and colleagues.

There are indications that low vitamin D levels are associated with increased disease severity in psychotic disorders. In these new studies, the authors investigated if low vitamin D status was associated with a specific symptom profile and if vitamin D deficiency was associated with cognitive deficits in young people with a psychotic disorder.

The studies recruited patients from in and outpatient clinics, and healthy controls. In the first study the authors included 358 patients with symptoms assessed by tools called the Positive and Negative Syndrome Scale and by the Calgary Depression Scale for Schizophrenia. In the second study the authors included 225 patients and 159 controls assessed by a cognitive test battery including processing speed, verbal learning, verbal memory and executive function tests.

Advanced statistical modelling was performed to enable control for other factors that could influence the results. Low vitamin D levels were found to be significantly associated with increased negative and [depressive symptoms](#) after controlling for gender differences, education level, inpatient status or having ethnic minority background. Season of the year for the assessments and having a diagnosis of schizophrenia versus affective psychosis were also included in the analyses. The authors were also able to show an association between vitamin D deficiency and cognitive impairments in processing speed and [verbal fluency](#) that remained significant after controlling for patient versus control status, current IQ levels, gender differences and the participants' ethnic background.

The authors conclude: "The associations between low vitamin D levels and increased negative and depressive symptoms, and decreased

processing speed and verbal fluency are good arguments for planning large scale randomised controlled studies in target populations, in order to reach conclusions about vitamin D's potential beneficial effect in [psychotic disorders](#)."

They are currently running studies investigating potential associations between vitamin D levels and brain structures as measured by magnetic resonance imaging (MRI).

Provided by International Early Psychosis Association

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