

# Cognitive impairment varies significantly among individuals with newly diagnosed psychosis, finds study

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A [recent study](#) published in *JAMA Psychiatry* by researchers from Karolinska Institutet and Uppsala University has found that cognitive impairment varies significantly among individuals with newly diagnosed psychosis.

The study, which is the largest compilation of cognitive test results for individuals with newly diagnosed [psychosis](#), confirms that [cognitive impairment](#) is present in the early stages of the disease, before medication is initiated.

In addition, for the first time, the study shows that this impairment varies greatly between individuals. Compared to control groups without psychosis, the patient group had up to twice as much variation in [cognitive tasks](#) such as attention, learning, and working speed.

It is already known that individuals with psychosis at the group level suffer from cognitive impairment before or in conjunction with the onset of the disease. Cognitive difficulties have also been shown to play a significant role in the functional impairment experienced by many with psychosis.

Many health care professionals working with the patient group know from [clinical experience](#) that cognitive problems can vary greatly between individuals, but this has not been systematically demonstrated before. The results clearly demonstrate the importance of individual assessment of cognition in patients with psychosis, to identify those who need help and support the most, and to contribute to the development of precision medicine approaches in psychosis care.

The team started by conducting a literature search to identify all studies investigating cognition in individuals with newly diagnosed psychosis

before they received anti-psychotic medication. This [systematic review](#) identified 50 studies, including a total of 2,625 individuals with psychosis and 2,917 control subjects.

Thereafter, [meta-analyses](#) were conducted to investigate differences in average test results between the groups, followed by separate meta-analyses of the difference in between-individual variation between the groups using a method called the coefficient of variation ratio. In other words, the researchers attempted to understand whether the distribution of results on cognitive tests was different among patients as a group compared to control subjects as a group.

The next step is to better understand the variability in cognitive impairment by examining how the development over time looks like, for example, if certain groups share trajectories in cognitive functioning and if these groups have other characteristics in common.

In addition, the team is investigating the biological mechanisms behind cognitive problems. The long-term goal of the research is to enable the development of new treatment options that can be given at an early stage to the individual who needs it most.

**More information:** Maria Lee et al, Cognitive Function and Variability in Antipsychotic Drug–Naive Patients With First-Episode Psychosis, *JAMA Psychiatry* (2024). [DOI: 10.1001/jamapsychiatry.2024.0016](#)

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