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SCHIZOPHRENIA Factsheet

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What is IQ?

Intelligence quotient (IQ) is derived from standardised tests used to measure general cognitive functioning. IQ is most commonly measured using the Wechsler Adult Intelligence Scale (WAIS). The WAIS is designed to measure all aspects of cognitive functioning, and is divided into subtests measuring verbal IQ (verbal comprehension and working memory) and non-verbal IQ (perceptual organisation and processing speed). Other tests used to assess IQ include the Mini-Mental State Examination (MMSE), which assesses cognitive impairment; the National Adult Reading Test (NART), which assesses premorbid intelligence; the Wide Range Achievement Test (WRAT), which assesses both verbal and mathematic ability; and the Raven's Progressive Matrices, which assesses general intelligence.

What is the evidence for IQ?

Compared to people without schizophrenia, moderate to high quality evidence finds a large effect of lower IQ in people with schizophrenia, including people with first-episode, youth-onset, or late-onset schizophrenia, with late-onset samples showing the greatest impairment. Moderate to high quality evidence shows small to medium-sized associations between lower IQ and poorer insight and more severe symptoms in people with schizophrenia.

There is a small to medium-sized effect of lower current IQ, but not premorbid IQ (measured prior to the onset of the disorder), in people with schizophrenia compared to people with affective psychoses (e.g. bipolar disorder). However, premorbid IQ was lower in people with first-episode schizophrenia compared to people with first-episode bipolar disorder.

High quality evidence shows greater improvements in global cognition with second-generation antipsychotics compared to first-generation antipsychotics. Specifically, moderate to high quality evidence finds improvements in global cognition with quetiapine, olanzapine, clozapine, risperidone and low-dose haloperidol, but not with high-dose haloperidol.

High quality evidence finds a small effect of lower current IQ, and a medium-sized effect of lower premorbid IQ in people with psychosis and current cannabis use compared to people with psychosis and no cannabis use. However, there was a small effect of better global cognition in people with psychosis and any substance use disorder compared to people with psychosis with no substance use disorder.

High quality evidence finds small effects of lower current and premorbid IQ in people at high-risk for psychosis. Those at familial high risk (having a first-degree relative with psychosis) were more impaired than those at clinical high risk (showing subclinical symptoms). Moderate to high quality evidence shows a small effect of lower IQ in people with first-episode psychosis compared to people at clinical high risk.

For further information see the technical table



NeuRA

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NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at neura.edu.au/donate/schizophrenia.

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