



NeuRA

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BIPOLAR DISORDER Factsheet

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What is IQ and how is it measured?

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 and general cognition in bipolar disorder?

Moderate to high quality evidence suggests a small, significant effect of poorer general cognitive functioning in people with bipolar disorder compared to controls prior to the onset of bipolar disorder when assessments were conducted retrospectively, but not prospectively. After illness onset, there was a significant, medium-sized effect of poorer general cognitive functioning in people with bipolar disorder compared to controls, with no deterioration over time (3-7 years). The effect was smaller in people with first-episode patients than in chronic patients.

Moderate quality evidence suggests a large impairment in global cognition in youth with bipolar disorder aged ~13 years who were matched to controls for age and IQ, but no differences in elderly people with bipolar disorder and controls matched for age and education.

High quality evidence suggests a small effect of poorer global cognition in people with bipolar disorder and a history of psychotic symptoms compared to people with bipolar disorder and no history of psychotic symptoms, and in people with bipolar I disorder compared to people with bipolar II disorder. There was also poorer global cognition in overweight people with bipolar disorder compared to normal weight people with bipolar disorder.

Moderate to high quality evidence suggests no differences in IQ between first-degree relatives of people with bipolar disorder and controls. However, when the analysis was contained to young relatives aged 10 to 25 years, high quality evidence shows a small effect of lower IQ compared to controls.

Moderate to high quality evidence suggests a small to medium-sized effect of higher IQ in relatives of people with bipolar disorder than in relatives of people with schizophrenia.

For more 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 bipolar disorder 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.

NeuRA (Neuroscience Research Australia) Foundation
T 1300 888 019 F +61 2 9399 1082
ABN 57 008 429 961

Margarete Ainsworth Building
Barker Street, Randwick NSW 2031
PO Box 1165 Randwick Sydney NSW 2031 Australia

neura.edu.au