

## **BIPOLAR DISORDER Factsheet**

October 2021

## What is social cognition and how is it measured?

Social cognition describes the ability to understand the actions and intentions of other people; the cognitive processes underlying social interactions that are used to guide behaviour. Aspects of social cognition may be altered in people with bipolar disorder, including processes such as Theory of Mind, social perception, and emotion processing. Theory of Mind refers to the ability to infer the mental states of other people. Social perception is an awareness of social cues and norms that dictate social interactions. Emotion processing is the ability to perceive emotional cues, such as the emotional content of facial expressions or vocal inflections (prosody). Social cognition is crucial for effective communication and relates to social competence and may predict work functioning.

## What is the evidence regarding social cognition in people with bipolar disorder?

High quality evidence finds a small effect of poorer overall social cognition in people with bipolar disorder compared to people without bipolar disorder (controls). There is poorer emotional intelligence, recognition of surprise, fear and disgust, but no differences in recognition of anger, happiness or sadness. High quality evidence also suggests small effects of poorer overall social cognition in first-degree relatives of people with bipolar disorder compared to people with no first-degree relative with the disorder.

Moderate to high quality evidence finds a medium-sized effect of poorer theory of mind in people with bipolar disorder compared to controls, including during euthymia. The effect size was larger in verbal than in visual tasks, larger in people with bipolar disorder II than in people with bipolar disorder I, and larger in acute patients.

High quality evidence finds a medium to large effect of poorer emotion recognition, and moderate quality evidence finds a large effect of poorer theory of mind in children with bipolar disorder compared to age-matched controls. Moderate quality evidence finds a medium to large effect of poorer accuracy on emotion recognition tasks in children with bipolar disorder compared to age-matched controls. There was also a smaller, non-significant effect of poorer response time. Unmedicated children showed longer response times than medicated children. Caucasian children with bipolar disorder showed longer response time and poorer accuracy than non-Caucasian children

Moderate to high quality evidence also finds a medium-sized effect of better social cognition in people with bipolar disorder than in people with schizophrenia on Theory of Mind and negative facial emotion recognition tasks, particularly in male patients. There were no differences between people with bipolar disorder or schizophrenia on positive (happy) facial emotion recognition tasks.

Moderate to low quality evidence finds a small relationship between poor emotion processing (identification and regulation) and poor general functioning, particularly in people with more severe depressive symptoms.

For more information see the technical table

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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.