

Abstract

Background

Executive dysfunction has been a well-known phenomenon in those who are suffering from schizophrenia, but has not yet been adequately explored in those who are suffering from bipolar disorder, a disease which is thought to be aetiologically similar to schizophrenia. Previous studies have yielded inconsistent results on the significance of such impairment, and the differential components of executive functioning have often been overlooked.

Aim & method

The primary aim of this case control study was to explore the executive deficits in euthymic bipolar I disorder in a fractionated manner, based on tests that were derived from Shallice's model of executive function. The secondary aim of this study was to explore the demographic and clinical characteristics of bipolar I subjects that were associated with the degree of executive impairment.

Results

When compared with control subjects who were matched by age, gender and IQ, bipolar I patients were found to have significantly worse performance in immediate and delayed visual memory, and in the executive domains of "sustained

attention” and “attention allocation and planning”. Those with a greater number of executive impairments had a lower IQ and had higher PANSS negative sub-scores.

Conclusion

A differential impairment in executive function was demonstrated in euthymic bipolar I subjects by using a fractionated approach in examining individual components of executive function based on Shallice’s model. Such findings may provide a better understanding of the residual functional impairment endured by patients with bipolar I disorder even when they are euthymic, so that goals of treatment or rehabilitation plans could be adjusted accordingly with these deficits in mind.

Keywords: components of executive function, bipolar I disorder