

HONOURS/MSc PROGRAM PROJECT 2019

Project title: Examining modifiable risk factors for bipolar disorder: focus on cigarette smoking and the brain

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Project description:

Bipolar disorder is a complex mood disorder characterised by extremes of emotion, impairments in cognitive functioning, and reductions in brain volume and thickness. Compared to the general population, a disproportionate number of people with bipolar disorder smoke cigarettes, which is in turn associated with a range of adverse health outcomes. Recently, cigarette smoking has been linked to thinning of the brain's cortex in healthy individuals. Given the increased prevalence of cigarette smoking in bipolar disorder, it is possible that it may represent one key factor perpetuating cognitive and brain deterioration in the illness. However, evidence testing this hypothesis is lacking. This project will overcome this by exploring associations between smoking history, brain structure and cognition in people with bipolar disorder compared to controls, using an available clinical dataset comprising relevant measures. The outcome of this work will assist in determining the extent to which cigarette smoking represents a modifiable risk factor for attenuating cognitive/brain decline in people with this illness.

The student will be responsible for conducting a literature review of the area, the development of the proposal and generation of study hypotheses, as well as data processing and statistical analyses. Publication of results is expected at the end of the project.

Department: Psychiatry, Melbourne Neuropsychiatry Centre, University of Melbourne
Research themes: Neuropsychiatry