

Fighting obesity in body and mind

Dr Evelyn Smith from the School of Social Sciences and Psychology has received a Ramaciotti Health Investment Grant from the Ramaciotti Foundations to investigate the link between obesity, inflammation and cognition deficits. The aim of the study is to determine whether therapies that improve cognition, when used with behavioural weight loss programs, are more effective at reducing obesity and improving cognition than the behavioural programs alone.

'It is believed that obesity increases the risk of inflammation, which in turn is thought to have negative impacts on cognitive function', Dr Smith explains. 'Obese individuals often demonstrate poorer impulse control, planning abilities, and executive functioning skills than non-obese people; this relationship between obesity and cognition may go both ways, with the inflammation associated with obesity inhibiting brain function and existing cognitive difficulties contributing to poor dietary choices. Unfortunately, current treatments for obesity do not address these cognitive aspects - however, manualised Cognitive Remediation Therapy (CRT) does, and we have piloted it in 40 obese people with great results.' This study will adapt CRT for obese individuals and test its effectiveness against standard weight loss programs.

One hundred and seventy six obese participants will be randomly allocated to one of two groups. The experimental group will receive eight individual CRT sessions delivered twice a week, as well as twelve weekly sessions of a group behavioural weigh loss program. The control group will not experience any CRT, but will get eight behavioural weight loss sessions, plus twelve group behavioural weight loss sessions. Weight will be measured at each session. Inflammatory markers will be measured before, immediately following, and six months after the study



to determine whether changes in inflammation are associated with changes in cognitive performance.

Addressing the cognitive deficits associated with obesity and inflammation will expand the scope of treatment options for obesity and its health problems.

Project Title: Obesity, inflammation and cognition: Examining their relationship within a randomised controlled trial of cognitive remediation therapy **Funding has been set at:** \$150,000, matched by the School of Social Sciences and Psychology for a total of \$300,000

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