The Effects of a biofeedback-attentional training on adult ADHD patients

Information on Study

The study involves attending the Institute of Neuroscience for 3 sessions for cognitive as well as EEG/fMRI assessment. Other 2 or 3 additional training sessions will be needed. Before starting the study, patients will be fully informed about EEG/fMRI procedures. Moreover, subjects who agree to participate will be randomly assigned to a biofeedback training called Self-Alert Training (SAT) group and a standard attentional training group.

Participants in both groups will receive in the first session a baseline cognitive, psychological and EEG/fMRI assessment.

The self-alert training group will attend two/three training sessions providing psychoeducation regarding arousal and attention, demonstration of external control over attention using skin conductance response, and self-initiated control over the arousal response. They will identify goals for the application of this strategy to key situations in everyday life. Participants will then practice self-alerting over a 2 week period at home using a home Electrodermal Activity (EDA) device that includes a remote monitoring system. The participant will be contacted twice a week during this period and their progress reviewed. There will be a final top-up training session.

The standard attentional training group will attend for the same number of training sessions and be contacted by the research team but will carry out Nintendo DS 'brain training exercises' rather than self-alert training.

Both groups will be reassessed after 5 weeks (session 2) and 17 weeks (session 3) using the cognitive, psychological, EEG and fMRI measures.

The study aims to evaluate the effectiveness of attentional training for adult with ADHD aged form 18 y.o. to 50 y.o. on cognitive and mental abilities as well as how it impacts on daily life.

This study is the result of a collaboration between Trinity's research team, led by Professor Ian Robertson, in the Trinity College Institute of Neuroscience, and Doctor Jessica Bramham from Saint Patrick's Hospital.