

## S16-01 - THE CO-VARIATION OF MOOD VARIABILITY WITH ADHD SYMPTOMS

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ADHD in adults is frequently associated with unstable or irritable moods reflecting difficulties with emotion regulation. Effect sizes of drug treatments on symptoms that reflect difficulties with emotion regulation, are similar to those on core ADHD symptoms, with co-variation of around 0.8 between the two types of symptoms during the treatment response. We therefore set out to investigate whether variability in mood results from the same aetiological processes that lead to variability in behaviour and cognitive performance in ADHD. Using real-time self-monitoring of emotional states and ADHD symptoms every two hours for 3-5 days, we characterised the mood changes in ADHD. Variability in both mood and ADHD symptoms (measured as the standard deviation) were significantly correlated with self-rated ADHD symptoms of inattention and hyperactivity. Subsequent analyses will link the observed symptom changes to cognitive-electrophysiological measures which are reliable indicators of core processes that underlie cognitive deficits associated with ADHD. We previously showed that a familial reaction time (mean and variability) factor explains 70% and commission and omission errors 20%, of the familial effects on ADHD. This finding concurs with the developmental model of Halperin which postulates that ADHD is linked to an early-appearing and enduring subcortical dysfunction, reflected in reaction time variability, while persistence/desistence of ADHD is dependent on maturational changes in executive control during adolescence reflected in commission and omission errors. We propose that at a behavioural level the subcortical deficit leads to dysregulation of a number of processes, including attentional, impulsive and emotional control.