Project Title: Paradoxical stress responses in adults with ASD
Supervisor: Dr Craig Melville

Project outline: Studies suggest that there is a relationship between chronic stress experienced by individuals with ASD and the increased rates of anxiety disorders, and other co-morbidities. Experimental stress reactivity studies have found that individuals with ASD have high baseline levels of stress, and experience a paradoxical reduction in objective & subjective measures of stress in response to stressors. For example, non-ASD controls experienced increased heart rate & cortisol in response to the stress tasks, whilst heart rate & cortisol decreased in the individuals with ASD. The mechanism for this paradoxical stress response is unknown but may explain why standard psychosocial approaches to managing anxiety have been found to be less effective for adults with ASD.

Summary Aim: To examine whether the paradoxical response to stress in ASD is related to the core social impairments in ASD. to examine this a protocol would examine the response of adults with ASD to a stress reactivity protocol that includes both social and non-social stressors.

Techniques to be used: Experimental research design skills, subjective and objective measurement of the stress response, linear and non-linear statistical modelling

References:

Hollocks et al. (2014) Differences in HPA-axis and heart rate responsiveness to psychosocial stress in children with autism spectrum disorders with and without co-morbid anxiety Psychoneuroimmunology 46, 32-45


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