Further Inform Neurogenetic Disorders

Get Involved - Research Projects

Social cognition and its relation to social development in Fragile X Syndrome, Cornelia de Lange Syndrome, Rubinstein Taybi Syndrome and Autism Spectrum Disorder

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This research is supported by the Leverhulme Trust

Background

Recent research has investigated social behaviour in different neurodevelopmental disorders, including Cornelia de Lange syndrome (CdLS), Fragile X syndrome (FXS) and Rubinstein Taybi syndrome (RTS), and has revealed difficulties in social interaction in individuals with FXS and CdLS (Cornish et al., 2008; Moss et al., 2008), similar to those observed in individuals with Autism Spectrum Disorders (ASD). Notably, prevalence rates of an ASD have been found to range from 21%-50% in FXS and from 50%-60% in individuals with CdLS (Moss & Howlin, 2009). However, the quality of social interaction difficulties observed in individuals with FXS and CdLS differs from those observed in individuals with autism, and is characterised by extreme shyness and social anxiety (Moss, Howlin & Oliver, 2011). On the other hand, individuals with RTS have been found to be more sociable than individuals with a similar level of intellectual disability (Galera et al., 2009).

Aims

In the current studies we aim to explore the nature of differences in the way children and adults with FXS, CdLS, RTS and ASD process and understand social information, in order to further our understanding of communication and social development in these individuals.

Method

Study 1 -
We are seeking children and adolescents (aged 2 to 15) with FXS, CdLS, RTS and ASD, as well as typically developing children, for participation in a range of assessments that evaluate social and language development and the processing of social information, such as other people's actions and speech. These include wearing a child-friendly EEG sensor net while watching a video and listening to sounds. They also include using a special eye-tracking camera to record children's eye movements as they watch videos on a computer screen. Participants will also complete cognitive and play-based assessments of language and social skills. All of the assessments are safe, non-invasive measures that we have used in previous studies to test children and adults in the general population.

Study 2 -

We are seeking children and adults with FXS, CdLS, RTS and ASD, as well as typically developing individuals, for participation in a range of assessments that evaluate language development and social and communication skills.

Progress to Date

We have currently tested approximately 35 toddlers and children with autism spectrum disorders and over 50 typically developing toddlers and children.

Implications of Research

The implementation of the current research programme may help us further our understanding of social and communication development in individuals with FXS, CdLS, RTS and ASD, which may then contribute to the development of more effective diagnostic strategies and intervention programmes.

Get Involved

CdLS participation information

Fragile X syndrome participation information

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