

## Prevalence of Autism Spectrum Disorder Symptomatology and Related Behavioural Characteristics in Persons with Down Syndrome

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### Background

- ◆ Individuals with autism spectrum disorder (ASD) show impairments in communication and social interaction skills and a range of repetitive behaviours and restricted interests.
- ◆ ASD has previously been thought to be rare in individuals with DS but recent research suggests that ASD characteristics might occur in 5% to 35% of individuals with DS.
- ◆ Individuals with DS who show ASD characteristics are thought to show very different cognitive and behavioural difficulties compared to individuals with DS who do not.
- ◆ Previous studies are limited because they have not controlled for differences in levels of learning disability and have not directly compared individuals with DS who have ASD characteristics to those with ASD who do not have a genetic syndrome.

### Aims of the project

- ◆ To estimate the prevalence of ASD characteristics in individuals with DS.
- ◆ To describe the presentation of ASD characteristics in individuals with DS in comparison to individuals with ASD who do not have a genetic syndrome.
- ◆ To evaluate similarities and differences in the frequency and severity of behavioural difficulties and mood in individuals with DS+ASD, DS only and ASD only.

### Methods

- ◆ Carers of individuals with DS and ASD completed questionnaires.
- ◆ Questionnaires included reliable and valid measures of ASD behaviour, activity levels, repetitive behaviour, challenging behaviour, mood and ability level.
- ◆ Seventeen individuals with DS+ASD, DS only and ASD only were selected and matched for degree of learning disability.

### Results

- ◆ 19% of individuals with DS scored above the cut off for ASD and 8% scored above the more stringent cut off for autism.
- ◆ Individuals with DS+ASD showed more stereotyped behaviour, repetitive language, overactivity and self-injury than those with DS only.
- ◆ Individuals with DS+ASD were less withdrawn from their surroundings than individuals with ASD only.

### Conclusions and future directions

- ◆ ASD characteristics occur in approximately 1 in every 5 individuals with DS.
- ◆ Individuals with DS+ASD show different levels of ability and different behavioural characteristics compared to individuals with DS who do not have ASD.
- ◆ Individuals with DS+ASD show similar characteristics to those with ASD only in some but not all areas of behaviour,
- ◆ It will be important to understand these similarities and differences when considering intervention and educational programmes in individuals with DS.

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