

## Age Related Change in Social Behaviour in Children with Angelman Syndrome

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### Background

- ◆ Previous estimates suggest that over 80% of children with Angelman syndrome (AS) show high levels of laughing and smiling behaviours.
- ◆ Previous research has indicated that these behaviours are higher in the presence of adult attention, suggesting that the behaviour is related to environmental events.
- ◆ It is not yet known how these social behaviours change with age.
- ◆ Knowing more about age related changes in social behaviour might help us understand more about children's development.

### Aims of the project

- ◆ To further explore the influence of adult attention on the levels laughing and smiling behaviours in children with AS.
- ◆ To describe the relationship between age and laughing and smiling behaviours.
- ◆ To establish whether any age related changes in behaviour are related to an increase in adaptive skills.

### Methods

- ◆ Experimental observations were conducted with 24 children aged 4-15.9 years with a genetic confirmation of Angelman syndrome.
- ◆ The experimental observations were conducted in a quiet room with a researcher either at home or school.
- ◆ The researcher changed the levels of attention given to the child in three alternating conditions:
  - ◆ *Proximity only*: the researcher remained close but did not interact with the child.
  - ◆ *Restricted social interaction*: the researcher interacted with the child but gave no eye contact or facial expressions.
  - ◆ *Social interaction*: the researcher interacted fully with the child.
- ◆ The levels of seven child behaviours were recorded including laughing and smiling behaviours, approach behaviours and eye contact.

### Results

- ◆ Laughing and smiling behaviours were found to vary with the level of adult interaction given.
- ◆ Levels of laughing and smiling were highest in the presence of full adult interaction and lowest when no interaction was given.
- ◆ The duration of laughing and smiling behaviours in the presence of adult contact was found to decrease with age.
- ◆ Levels of laughing and smiling were not affected by the level of children's adaptive skills.

### Conclusions and future directions

- ◆ Children's laughing and smiling behaviours are related to adult interaction, suggesting that some children with AS may find adult interaction enjoyable and rewarding.
- ◆ This suggests that using social attention may be an effective way to teach children new or adaptive behaviours.

**Full reference:** Adams, D., Horsler, K. & Oliver, C. (2011). Age related change in social behaviour in children with Angelman syndrome. *American Journal of Medical Genetics*, 155, 1290 – 1297.