

# Interactions between parents and children with and without Autism Spectrum Disorder

## BACKGROUND

- Symptoms of Autism Spectrum Disorder (ASD) may challenge parents when trying to effectively support their child's learning
- Parents may adopt **directive parenting styles** to compensate for their child's difficulties, but contribute to an increasingly atypical developmental trajectory Wan et al (2012).
- No cure for ASD and prevalence rates are rising (Matson & Kozlowski, 2011), so research is shifting towards developing **parent-child relationship interventions** to alleviate symptoms rather than curing them.

## THE CURRENT STUDY

### Hypotheses

#### Book reading

- Children with ASD **least receptive**, show **less joint attention** and use **more irrelevant speech**
- Their parents use **fewer characteristics** recognised to support book reading and use **more physical touch**
- The overall level of **positivity** was expected to be lowest in the ASD group.

#### Lego Task

Children with ASD were expected to **ignore** support provided from the parent the most and **request for help the least**. Parents of children with ASD would differ to parents of children with DD or TD in terms of how they **scaffold** their child's learning.

## METHODOLOGY

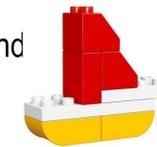
### Participants

- 47 parents with their children who were either diagnosed with;
- **ASD** (16 aged 3-6 taken from Hobson, Garlington, Hollaway and Moore (2015) ).
  - **Developmental delays (DD)** (14 aged 3-4 taken from Hobson, Garlington, Hollaway and Moore (2015) ).
  - or **typically developing (TD)** (17 aged 2 ½ - 3).



### Procedure

- **Three 5minute tasks** (book reading, build Lego boat and hook a duck game) All video recorded
- Assessment of vocabulary using the **Peabody Picture Vocabulary Test, Fourth Edition** (PPVT-4). ASD and DD groups were assessed in the previous study using a standardised language measure.



## RESULTS

Book reading and Lego task were deemed most appropriate to analyse for the purposes of this research.

### Book Reading

- A multivariate analysis of variance (MANOVA) highlighted **differences across the three groups** ( $F(32,60) = 2.71, p < 0.001$ ).
- Significant differences in parent communication were likely to have occurred in variables illustrated in figure 1.

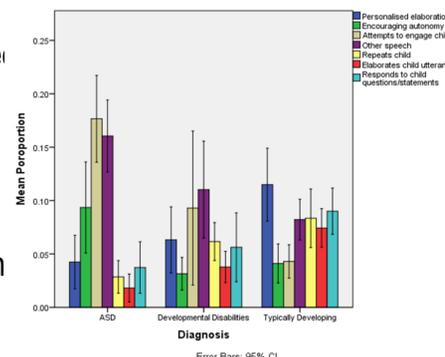


Figure 1. Parent speech in proportions

For child communication variances across groups were likely to be in;

- **proportions of relevant speech**  $F(2,44) = 7.32, p = 0.002$ . (ASD significantly lower)
- **Frequencies of ignoring parent**  $F(2,44) = 11.92, P < 0.001$  (ASD significantly higher)

A second MANOVA assessed variations in parent physical touch, joint attention and positivity and found a significant difference ( $F(8,84) = 3.79, p = 0.001$ ).

Individual ANOVA's highlighted that this difference was likely to be found within ratings of **positivity**  $F(2,44) = 13.08, p < 0.001$ , with ASD being significantly lower than both groups

### Lego Task

A MANOVA identified group differences in **parent scaffolding techniques and a child's response to this** ( $F(16,76) = 3.29, p < 0.001$ )

Individual ANOVA's showed that these differences were likely to be in variables presented in figure 2 and 3.

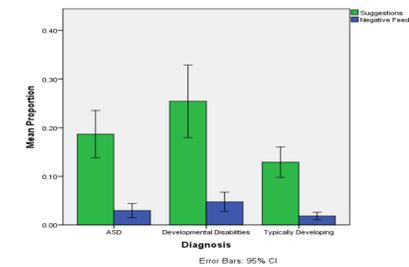


Figure 5. Parent tutoring in proportions

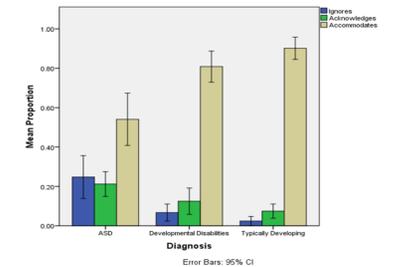


Figure 2. Child responses in proportions.

Note: For suggestions and negative feedback, ASD responded similarly to DD and TD, however DD and TD were different. For ignore and accommodation, ASD were significantly different to TD and DD which responded similarly. For acknowledgement, DD was similar to ASD and TD which responded dissimilarly.

## CONCLUSION

### Book reading

#### Confirm the hypotheses-

- parents of children with ASD use fewer characteristics known to support book reading
- children with ASD are less receptive to their parent
- Overall level of positivity lowest in ASD group

#### Contradict the hypothesis-

- children with ASD use more irrelevant speech and show less joint attention

### Lego Task

#### Confirm the hypothesis-

- Children with ASD were expected to ignore support provided from the parent the most and request for help the least.

#### Contradict the hypothesis-

- Parents of children with ASD would differ to parents of children with DD or TD in terms of how they scaffold their child's learning.
- Interventions should teach effective **dialogic reading styles** to support child's vocabulary and work on improving positivity
- inability to **understand others** and an unwillingness to use **spoken language** may account why ASD ignore
- As ASD parents were similar to TD, it suggests they are not limiting their child's potential, contradicting Wan et al (2012)
- Future studies should assess any differences in **types of physical touch** among these groups e.g. forceful/ affectionate

## REFERENCES

- Hobson, Garlington, Hollaway & Moore (2015) Clinical Utility of the Relationship Development Assessment – Research Version (RDA--RV) for Children with Autism in a Preschool Setting (unpublished)
- Matson, J. L., & Kozlowski, A. M. (2011). The increasing prevalence of autism spectrum disorders. *Research in Autism Spectrum Disorders*, 5(1), 418-425.
- Meins, E. (1997). Security of attachment and maternal tutoring strategies: Interaction within the zone of proximal development. *British Journal of Developmental Psychology*, 15(2), 129-144.
- Wan, M. W., Green, J., Elsabbagh, M., Johnson, M., Charman, T., Plummer, F., & BASIS Team. (2012). Parent–infant interaction in infant siblings at risk of autism. *Research in developmental disabilities*, 33(3), 924-932.