





lower developmental age than SIBS-TD. The authors then examined the individual scores of siblings in each group, a strength of the study. Among the SIBS-A group 8 had a language developmental age lower than 14 months, 6 had a language developmental age of 9 months, and 2 achieved a language developmental age of 12 and 13 months. In comparison only 3 of the SIBS-TD achieved a language developmental age lower than 14 months, all 3 being a delay of only 1 month. Given the above analysis the authors then re-grouped the SIBS-A into the 6 siblings having a delay of 5 months (SIBS-A-LD) and the 24 remaining siblings with normal language levels (SIBS-A-nonLD). An ANOVA was well selected as 3 means were compared (SIBS-A-LD, SIBS-A-nonLD, and SIBS-TD), thereby decreasing the chances of a type I error. Analyses revealed that the SIBS-A-

4 to 4.5 years. The SIBS-A and SIBS-TD groups both contained 39 children. Any SIBS-A added to the study after 4 months of age was matched as closely as possible to SIBS-TD according to parents age, ethnicity,



siblings of children with ASD having lower scores. However, groups did not differ on expressive abilities. Chuthapisith et al. (2007) found that 7 of the 10 children having the highest test verbal IQ scores were in the siblings of ASD group. However, these results are regarded as equivocal due to multiple shortcomings of the study.

Preschool siblings of children with ASD were shown to have lower receptive language abilities and comparable expressive language abilities when compared to children with no family history of ASD. Several methodological shortcomings reduce the credibility of this conclusion. Several studies included small sample sizes and unequal groups. Additionally, due to the narrow demographics of the samples, care should be taken with interpretation and generalization of the findings. Among the studies, participants were recruited from a single institution, or as in Yirmiya and colleagues (2005) longitudinal studies, no mention was made as to how siblings were recruited, thereby, introducing a possible extraneous variable.

The current evidence suggests that specific language vulnerabilities exist and can be observed by SLPs as young 12 months of age. Recent research has suggested better outcomes with early intervention.

Based on the limitations of the current research discussed above, it is recommended that further research be done to investigate the language abilities of preschool siblings of children with ASD and should include the following:

- 1) Inclusion of a comparison group of siblings of children with other developmental disorders to determine if early language characteristics are specific to those families with a history of ASD or more broadly related to families with children with special needs.
- 2) More longitudinal studies should be completed to follow young siblings development and document how early language abilities change over time.
- 3) Demographic characteristics for future studies should more closely represent the general population with larger sample sizes.
- 4) Blinding procedures should be utilized for assessment of siblings to eliminate potential bias.