

Data related to the Sociodemographic and Clinical Characteristics of Families of Children in ASD and Control Group

Data related to the sociodemographic and clinical characteristics of the families of children with ASD and the control group are shown in Supplementary Table 1. According to the findings, mothers and fathers in the ASD group have significantly higher age at the start of pregnancy compared to the control group.

The educational level of the parents of children placed in the sample is examined. No significant difference was found in the distribution of parents educational qualifications.

When it is examined the employment status of the mothers of the children in the sample, there was no significant difference between groups in terms of the distribution of mothers' employment status ($\chi^2 = 1.978, p = 0.160$).

The levels of income of the parents of the children in the sample were examined. There is no significant difference between groups in terms of the distribution of income levels ($\chi^2 = 1.945, p = 0.378$).

It was observed whether the parents of the children included in the sample suffered from psychiatric or other medical disorders. There is no significant difference between groups in terms of the distribution of psychiatric or other medical disorders ($\chi^2 = 1.614, p = 0.204, \chi^2 = 1.569, p = 0.210$).

Mothers of children in the ASD and control groups were examined for substance use during pregnancy. There is no significant difference between the groups in the distribution of medication use during pregnancy. ($\chi^2 = 0.105, p = 0.745$).

The usage of vitamins by mothers of children with ASD and in the control groups during pregnancy was also examined. It was found that the usage of vitamins during pregnancy in the control group was significantly higher than ASD group ($\chi^2 = 5.115, p < 0.05$).

Supplementary Table 1. Data related to the sociodemographic and clinical characteristics of the families of children with autism spectrum disorder and control group

Variables	ASD (n = 40)		Control (n = 40)		U	χ^2	p value
	Mean	Standard deviation	Average	Standard deviation			
Mother's age (beginning of Pregnancy)	30.02	7.04	26.95	6.14	588.5*		0.041
Father's age (beginning of Pregnancy)	34.08	7.02	31.15	6.89	571.5*		0.028
Mother's working status							
Work	11	27.5	17	42.5		1.978	0.160
Workless	29	72.5	23	57.5			
Income status							
Minimum wage	13	32.5	9	22.5			
Twice the minimum wage	19	47.5	18	45		1.945	0.378
Three times or more than the minimum wage	8	20	13	32.5			
Family history of psychiatric illness							
No	36	90	32	80		1.569	0.210
Yes	4	10	8	20			
Family history of medical illness							
No	27	67.5	32	80		1.614	0.204
Yes	13	32.5	8	20			
Drug use during pregnancy							
Non-used	34	85	35	87.5		0.105	0.745
Used	6	15	5	12.5			
Vitamin use during pregnancy							
Folic acid	22	55	12	30		5.115*	0.024
Folic acid and vitamin D	18	45	28	70			

* $p < 0.05$, Chi-square test.

Relation between the data of ADSI and PLS-4 in the ASD group

The relation between the data of ADSI and PLS-4 which is implemented in the ASD group is examined and the results are shown in Supplementary Table 2. Our findings revealed a robust positive correlation between language development and general developmental values as measured by the ADSI, as well as all sub-scores of the PLS-4. This emphasizes the inter-relationships of language abilities and general developmental advancement our group.

Supplementary Table 2. The relation between ADSI and PLS-4 data in the group with ASD

Scales	ADSI general development upper value differential	ADSI general development lower value differential	ADSI language cognitive development upper value differential	ADSI language cognitive development lower value differential
PLS-4 receptive language lower value differential	0.984*	0.981*	0.982*	0.963*
PLS-4 receptive language upper value differential	0.982*	0.964*	0.975*	0.938*
PLS-4 expressive language lower value differential	0.926*	0.950*	0.925*	0.948*
PLS-4 expressive language upper value differential	0.945*	0.954*	0.940*	0.936*

ADSI, Ankara Development Screening Inventory; ASD, autism spectrum disorder.

* $p < 0.01$.

Explanation of the table: since the results of the PLS-4 are in the form of months as indicated in the materials (e.g., “9–11” months, “12–17” months), the difference obtained by subtracting the minimum and maximum values of age was recorded. Receptive and expressive language scores obtained as a result of the PLS-4 were subtracted from the child’s calendar age (value in months) to determine the degree of deficit in cognitive language development. For example, while a 72-month-old infant’s receptive language age on the PLS-4 was measured between 18 and 23 months and expressive language age between 12 and 17 months, a 36-month-old infant’s receptive language age can also be measured between 18–23 months and expressive language age between 12–17 months. Hence, the degree of impairment of language development in months was determined by taking the difference so as not to assess whether the 72-month-old and the 36-month-old had the same cognitive development of language.

Table explanation: Because ADSI scores are reported in monthly intervals after month 13 (e.g., “45–47” months, “48–54” months) to determine the degree of deficits in general development and cognitive language development, the difference resulting from subtracting the minimum and maximum ADSI-determined ages for general development and cognitive language development (value in months) from the child’s chronological age (value in months) was recorded. For instance, based on the ADSI result, a 72-month-old child’s age can be measured to be between 45 and 47 months, whereas a 60-month-old child’s age can be measured to be between 45 and 47 months based on the general development score. In order to avoid evaluating the general development and language cognitive development of a child who is 72 months old to one who is 60 months old, the degree of general development and language cognitive development deficiencies in months was calculated by taking the difference.