ADAPTIVE BEHAVIOR PROFILES OF AUTISTIC CHILDREN AND ADOLESCENTS ACCORDING TO SEX AND IQ

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Background

Adaptive behavior, covering communication, daily living, socialization, and motor skills, is crucial for autonomy and is often impacted in neurodevelopmental conditions like autism[1]. While separate from intelligence, adaptive behavior correlates strongly with IQ, especially in typically developing individuals[2]. However, in autism, this correlation weakens, allowing for below-average adaptive behavior scores even with average IQ[3]. Gender differences, particularly in social adaptive function, are also noted[4].

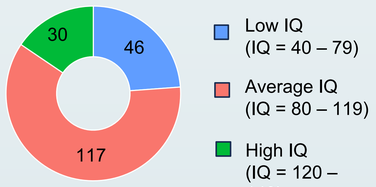
Objectives

Investigating adaptive behavior patterns in autistic children and adolescents based on sex and intellectual functioning, exploring group differences.

Methods

Participants

- Community sample of 193 children and adolescents (male = 161, female = 32) referred to an autism specialty clinic, aged 4 to 18 (*M* = 8.91, *SD* = 3.41).



Clinical measures

- Cognitive and adaptive abilities were assessed using the Wechsler and Vineland scales.
- Participants were categorized into three groups based on IQ.

Results

- No significant sex-based differences in adaptive behavior scores ($p > 0.05$).
- Moderate positive correlation between Wechsler and Vineland scale scores (rs[190] = .40, $p < .001$; Figure 1).
- IQ grouping effect on general adaptive behavior scores ($\chi2(2) = 22.60$, $p < 0.001$, $\eta2 = 0.108$).
- Significant differences between low IQ group (M = 53) and average (M = 65, p < 0.001) and high (M = 72, p < 0.001) groups; no significant difference between average and high IQ groups (p = 0.92).
- Significant differences across adaptive behavior domains except motor domain (Table 1, Figure 2).

Figure 1
Correlation between Wechsler and Vineland scales

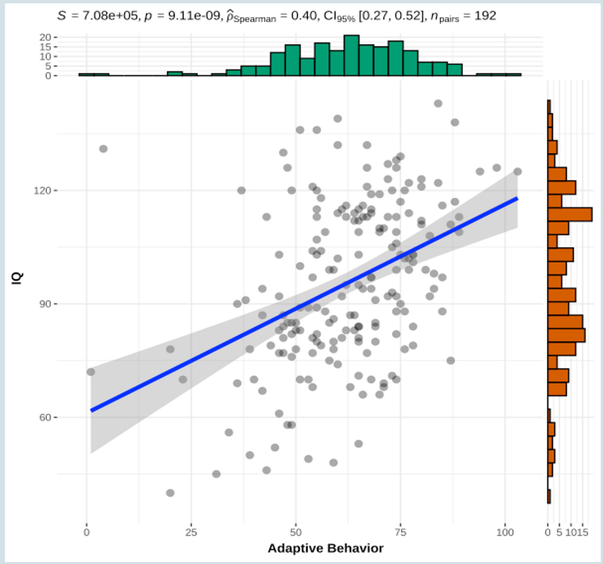


Figure 2
Adaptive behavior patterns according to dimension and IQ groups

Results

Table 1
Kruskal-Wallis test results and pairwise comparisons for IQ groups in each adaptive behavior dimension

				IQ groups					
				Low		Average		High	
AB dimensions	$\chi2(2)$	p	$\eta2$	m	IQR	m	IQR	m	IQR
Communication	51.425	<0.001	0.260	61_a	22.5	79_b	18	91_b	23
Daily living skills	15.069	<0.001	0.069	56_a	27	65_b	21	70.5_b	24.8
Socialization	13.039	0.001	0.058	55_a	19.5	63_b	16	62.5_b	22.8
Motor skills	3.836	0.147	0.010	81_a	34	84_a	24	81.5_a	32.2

Note. Medians in a row not sharing subscripts are significantly different from one another ($\alpha = 0.05$)

Conclusions

The study's sex-related results differ from existing literature, potentially due to sample size discrepancies, indicating ongoing underrepresentation of females in ASD studies. Nonetheless, variations in adaptive behavior based on IQ provide valuable insights into autism. This underscores the importance of separately assessing adaptive behavior domains, given potential skill-level differences among autistic individuals. These findings are clinically significant, aiding in intervention planning and enhancing functional outcomes.

References

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