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Influence of parental education on the intelligence quotient profiles and socially adaptive behavior of school-age children with autism spectrum disorder in eastern China

Key words: Autism spectrum disorder (ASD); School-age children; Intelligence quotient (IQ); Adaptive behavior; Parental education

Research summary

This review mainly focused on the association between parental education level, IQ and adaptive behavior in school-age autism spectrum disorder (ASD) groups, and summarized the following aspects:

1. The intelligence level was positively correlated with age. Adaptive behavior did not increase with age. ASD children who attend mainstream schools have better adaptive behaviors than other children.

		Spearman correlation (Age)	p values
WISC-IV	FSIQ	0.241	<0.001
	VCI	0.220	<0.001
	PRI	0.174	0.005
	WMI	0.209	<0.001
	PSI	0.242	0.001
ABAS-II	GAC	0.051	0.414
	Con	0.064	0.304
	Soc	0.072	0.249
	Pra	0.024	0.699

Table 3 Correlation analysis between IQ and adaptive behavior profiles and children's age.

Research summary

2. Highly educated mothers had a positive effect on the intelligence and adaptive behavior of autistic children, while the influence of the father was relatively smaller.

	Father's education					Mother's education					
	Middle school (n=96)	Junior college (n=48)	College or above (n=108)	Others (n=5)	p values	Middle school (n=76)	Junior college (n=65)	College or above (n=106)	Others (n=10)	p values	
WISC-IV	FSI	73.54±	70.88±	82.10±	85.80±	0.007 ^a	68.99±	74.42±	84.80±	68.90±	<0.001 ^a
	Q	20.23	19.96	24.76	20.13		19.54	18.99	24.76	16.46	
	VCI	74.41±	74.75±	82.42±	96.40±	0.019 ^a	71.14±	75.88±	85.48±	71.40±	<0.001 ^a
		19.94	19.07	24.06	20.61		19.79	18.75	23.92	14.25	
	PRI	83.39±	78.88±	90.16±	92.40±	0.040	76.88±	84.35±	93.26±	77.80±	<0.001
		23.55	22.00	26.73	18.84		22.62	21.12	26.55	23.03	
ABAS-II	WMI	72.51±	72.83±	82.59±	78.00±	0.002	69.36±	74.95±	84.07±	71.30±	<0.001
		19.12	20.30	21.71	12.28		17.68	20.03	21.57	20.00	
	PSI	75.99±	69.73±	80.08±	82.40±	0.027	73.00±	74.02±	81.35±	72.10±	0.020
		19.91	18.72	20.92	16.62		20.67	18.81	20.81	13.55	
	GAC	79.54±	83.42±	84.90±	77.00±	0.086	79.68±	82.46±	85.25±	74.10±	0.038
		15.98	14.85	16.04	12.75		16.10	14.71	15.75	18.19	
ABAS-II	Con	79.99±	83.29±	84.49±	78.60±	0.159	79.25±	82.29±	85.48±	76.20±	0.020
		15.33	13.49	15.00	6.50		15.23	13.30	14.87	15.62	
	Soc	74.65±	78.48±	81.78±	72.80±	0.038	75.34±	77.74±	81.50±	71.10±	0.071
		17.01	19.08	18.13	16.89		17.78	16.85	18.68	17.84	
ABAS-II	Pra	84.70±	87.65±	88.69±	81.20±	0.229	85.26±	87.26±	88.58±	78.10±	0.135
		15.26	14.54	15.41	13.05		15.33	14.62	14.91	18.90	

Table 4 IQ level and adaptive behavior vs. parental education.

^ais the Kruskal-Wallis test, and the rest are ANOVA

Innovation points

This study

- **summarized** the intelligence structure and adaptive ability of school-age children with ASD, as well as their relationship with age.
- **highlighted** the impact of parental intelligence level on children's cognitive and adaptive development.