

in neuro-biological changes. Exposed to powerful, negative environment, lead to hyperactivation of the neurological,imune and endocrine system. This state is known as a Toxic stress.

Methods

All participants are patients in Child And Youth Protection Center Of Zagreb. Sample is taken from database of 1954 patients suffered from Toxic stress (ACES≥4).

All patients with diagnosed FAS or NAS from the period between the end of 2015 and 2022 were included(n=94). The rest of the participants were chosen randomly from the data base.

Participants were between 2 and 17 years old, with the average age of 9 (sd=3.42).

Visuospatial development (presented on a scale from 1 to 4, 1 is representing below average, and 4 is representing above average score)

Cognitive development (presented on a scale from 1 to 4, 1 is representing below average, and 4 is representing above average score)

Fine motor skills (presented on a scale from 1 to 3; 1 is representing below average, and 3 is representing normal)

Verbal skills (presented on a scale from 1 to 3; 1 is representing below average, and 3 is representing normal)

Cognitive functions	Borderline	5%	Verbal skills	No	67%
	Average	62%		Below average	28%
	Above average	23%		Borderline	17%
	Disrithmic	22%		Normal	54%
	Irregularities	4%			
EEG	Normal	74%			

BY GROUPS		FAS/NAS		Other Diagnoses		p(t)	p (M-W U)	p(χ²)
			%		%			
School results	Good		6%		6%	.550		
	Very good		25%		38%			
	Excelent		6%		19%			
School	Special program		19%		10%			.124
	Regular program		26%		45%			
Visuospatial development	Below average		27%		9%	.004	.005	
	Marginal		11%		16%			
	Average		9%		27%			
Cognitive functions	Below average		8%		3%	.034	.050	
	Borderline		5%					
	Average		31%		31%			
	Above average		5%		18%			
EEG	Disrithmic		20%		2%			.010
	Irregularities		2%		2%			
	Normal		26%		48%			
Fine motor skills	Below average		24%		9%	.174	.179	
	Borderline		7%		24%			
	Normal		17%		20%			
Attention	Fluctuating		26%		13%			.040
	Normal		22%		39%			
Impulsivity	Yes		22%		26%			.758
	No		26%		26%			
Hyperactivity	Yes		24%		9%			.016
	No		24%		43%			
Verbal skills	Below average		17%		11%	.566	.660	.266
	Borderline		4%		13%			
	Normal		26%		28%			

