

## SUPPLEMENTARY MATERIALS

ID	GA	BW	Apgar 1min	Apgar 5min	Apgar 10min	Cranial Circ.	Lenght	Mecanical Ventialtion	Parentelar Nutrition	NICU stay	Difficulties at birth	Start walking	First words	NDDs
1	31+3	1550	9	9	-	28,5	40	No	Yes (5 days)	Yes (22 days)		12 months	18 months	
2	30+3	1480	4	8	-	28,5	42	Yes (4 days)	Yes (7 days)	Yes (36 days)	bilateral periventricular hypercogenicity, then normalized	8 months	12 months	Dyslexia
3	30+3	1632	8	9	-	29	43	Yes(7 days)	Yes (7 days)	Yes (36 days)		9 months	12 months	
4	28+0	745	8	9	9	24,5		Yes(68 days)	Yes (42 days)	Yes	hypotension (support with inotropic drugs for 11 days)			
5	27+4	862	1	3	5	24,5	36	Yes (77 days)	Yes (33 days)	Yes (81 days)	intubation at birth	16 months	18 months	
6	26+3	800										16 months	12 months	
7	28+0	1230												
8	28+0	1500												
9	26+5	896	5	7	8	25,2	30	Yes (32 days)	Yes (42 days)	Yes	intubation at birth for 1 month, ipotension (dopamine drug), antireflux therapy, retinopathy stage 3 (laser operation and resolution within a month)	12 months	12 months	
10	28+2	850	7	7	8	25,4	33,5	Yes (18 hours)	Yes (16 days)	Yes (56 days)	intubation, but then normal respiration	18 months	12 months	
11	31+4	1285	6	8	9	28	39	Yes (2 days)	Yes (19 days)	Yes				
12	31+4	1950	4	6	7	29,5	46	Yes (7 days)	Yes (20 days)	Yes				
13	29+2	1675	8	8	9	27,7	42	Yes (1 day)	Yes (17 days)	Yes (40 days)	moderate periventricular hyperechogenicity in the frontal and occipital areas, diffuse microgranule	17 months	12 months	
14	31+4	1345	8	8	-	29	39	Yes (8 hours)	Yes (12 days)	Yes (27 days)	mild periventricular hyperechogenicity, foramen ovale pervio	18 months	24 months	
15	32+5	1985	7	9	-	31,1	41	Yes (1 day)	Yes (5 days)		oxygen therapy (1 day), disseagulopathy (plasma transfusion), doubtful cochlear function	15 months	26 months	
16	31+1	1820	7	7	9	31,3	42	Yes (1 day)	Yes (only for idratation)	Yes (28 days)	apnea of prematurity (caffeine drug for 2 weeks)	9 months	11 months	
17	27+5	880	8	9	9	26,2	36	Yes (17 days)	Yes (42 days)	Yes	slight right periventricular hyperechogenicity, slight ventricular asymmetry (left>right), mild bilateral pulmonary hypotransparency	13 months	12 months	
18	34+0	2270						Yes	Yes (42 days)	Yes		13 months	12 months	
19	30+0	2100										16 months	11 months	borderline for ADHD
20	28+0	990	9	9	-	25	35	Yes (19 days)	Yes (13 days)	Yes (25 days)	mild periventricular hyperechogenicity in fronto-parietal and occipital areas, hyperbilirubinemia (resolved with phototherapy)			
21	28+0	1100	6	7	8	26	36	Yes (24 days)	Yes (11 days)	Yes		18 months	12 months	
22	24+0	656	8	8	-	22	30	Yes (21 days)		Yes	periventricular hyperechogenicity, ledt pneumothorax, caffeine for apnea	17 months	36 months	Dysgraphia
23	30+0	950	9	10	-	26	34,5	No		Yes (40 days)	mild periventricular hyperechogenicity in occipital part of cerebellum, apnea of prematurity	17 months	24 months	
24	25+3	640	7	8	9	22,9	33	Yes	Yes (14 days)	Yes	apnea of prematurity,	18	12	

										foramen ovale pervio, bilateral retinopathy stage 2	months	months	
25	29+0	1350							Yes		10 months	12 months	
26	32+2	1950	9	10	-	29	43	Yes (6 days)	Yes (7 days)	Yes		14 months	12 months
27	27+6	512	7	8	-	24	35	Yes (18 days)	Yes (28 days)	Yes	pneumothorax	18 months	12 months
28	34+0	1145	9	9	-	29,5	39	No	Yes (9 days)	Yes		19 months	6 months
29	36+0	2300										13 months	7 months
30	30+0	900											
31	30+0	1200											
32	32+3	1980	9	9	9			No	Yes (3 days)			15 months	14 months
33	32+3	2200	7	9	9			No	Yes (1 day)			17 months	15 months
34	32+5	2500	8	8	9	32,6	48	Yes (4 days)	Yes (5 days)	Yes (18 days)		13 months	24 months

**Table S1.** Summary of neonatal information of preterm children. GA= gestational age; BW= birth weight; APGAR score at 1, 5 and 10 minutes after birth; Cranical circumference, Length, Days of mechanical ventilations; Days of parentelar nutrition; length of period spent in neonatal intensive care unit (NICU); Difficulties at birth, including neurological, respiratory, cardiac, gastrointestinal and sensory problems; age when the child moved the first steps and said the first words; NDDs= diagnosis for neurodevelopmental disorders

	Full-term children	Preterm children	Test for group differences
<b>CPM</b> Z scores	0.86 (0.67)	0.77 (0.66) LP: 1.03 (0.73) VP: 0.76 (0.68) EP: 0.48 (0.48)	t= 0.50 p= .619
<b>Digit span forward</b> Z scores	0.06 (0.97)	-0.16 (0.81) LP: -0.19 (0.98) VP: -0.23 (0.86) EP: 0.08 (0.49)	t= 0.85 p= .400
<b>Digit span backwards</b> Z scores	0.66 (0.94)	0.34 (0.79) LP: 0.27 (0.93) VP: 0.39 (0.70) EP: 0.26 (0.97)	t= 1.34 p= .190
<b>Attention Network Task (ANT)</b>	Alerting: 29.72 (41.04)  Orienting: 20.34 (63.84)  Control: 34.50 (51.84)	Alerting: 38.11 (50.62) LP: 11.15 (58.55) VP: 47.91 (45.97) EP: 38.88 (20.88)  Orienting: 26.25 (39.23) LP: 68.27 (43.84) VP: 16.61 (47.10) EP: 10.40 (42.80)  Control: 47.01 (61.96) LP: 50.64 (46.23) VP: 54.14 (65.08) EP: 24.02 (50.80)	Alerting: t= -0.67 p= .505  Orienting: t= -0.35 p= .730  Control: t= -0.82 p= .417
<b>Berg Card Sorting Test (BCST)</b>	Errors: 27.02% (8.35)  Perseverative Errors: 14.25% (6.14)	Errors: 41.89% (10.81) LP: 41.57 (10.99) VP: 42.79 (10.72) EP: 44.50 (8.35)  Perseverative Errors: 21.85% (7.94) LP: 19.31% (6.52) VP: 22.29% (9.24) EP: 23.22% (11.14)	Errors: t= -5.67, p< .001  Perseverative Errors: t= -3.71, p< .001

	Non Perseverative Errors: 12.77% (7.44)	Non Perseverative Errors: 18.61% (5.68) LP: 14.73% (5.55) VP: 17.76% (10.76) EP: 24.78% (19.5)	Non Perseverative Errors: $t = -2.08, p = .042$
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**Table S2** Cognitive Tests: Descriptive statistics divided for level of prematurity

	<b>Full-term children</b>	<b>Preterm children</b>	<b>Test for group differences</b>
<b>SDQ</b>	Difficulties Score: 5.00 (3.2) Prosocial Behavior: 8.65 (1.4) Emotional Symptoms: 1.24 (1.1) Conduct Problems: 1.06 (1.0) Hyperactivity: 2.12 (1.8) Peer Problems: 0.59 (1.1)	Difficulties Score: 8.03 (4.3) LP: 5.83 (2.14) VP: 8.33 (3.90) EP: 9.14 (6.31) Prosocial Behavior: 8.10 (1.5) LP: 8.33 (1.51) VP: 8.05 (1.55) EP: 8.00 (1.73) Emotional Symptoms: 2.19 (1.9) LP: 1.33 (1.21) VP: 2.22 (1.63) EP: 2.86 (2.97) Conduct Problems: 1.61 (1.2) LP: 1.17 (1.60) VP: 1.67 (1.03) EP: 1.85 (1.34) Hyperactivity: 3.16 (2.0) LP: 2.50 (1.38) VP: 3.33 (1.97) EP: 3.29 (2.56) Peer Problems: 1.06 (1.3) LP: 0.83 (1.17) VP: 1.11 (1.32) EP: 1.14 (1.46)	Difficulties Score: $t = -2.75 p = .009^*$ Prosocial Behavior: $t = 1.25 p = .219$ Emotional Symptoms: $t = -2.15 p = .037^*$ Conduct Problems: $t = -1.74 p = .090$ Hyperactivity: $t = -1.87 p = .069$ Peer Problems: $t = -1.33 p = .191$
<b>ERC</b>	Emotional Negativity: 25.53 (4.7) Emotional Regulation: 27.83 (2.9)	Emotional Negativity: 27.11 (3.5) LP: 26.33 (2.16) VP: 27.47 (3.14) EP: 27.00 (5.13) Emotional Regulation: 27.10 (3.3) LP: 28.67 (3.05) VP: 26.65 (3.50) EP: 26.86 (2.27)	Emotional Negativity: $t = -1.21 p = .238$ Emotional Regulation: $t = 0.80 p = .426$
<b>TMCFQ</b>	Surgency: 3.40 (0.5) Effortful Control: 3.28 (0.9) Negative Affect: 2.42 (0.5)	Surgency: 3.26 (0.40) LP: 3.33 (0.48) VP: 3.29 (0.49) EP: 3.16 (0.28) Effortful Control: 3.41 (0.5) LP: 3.49 (0.28) VP: 3.38 (0.61) EP: 3.41 (0.29) Negative Affect: 2.76 (0.4) LP: 2.71 (0.44) VP: 2.78 (10.76) EP: 2.83 (0.56)	Surgency: $t = 0.89 p = .384$ Effortful Control: $t = -0.55 p = .592$ Negative Affect: $t = -2.43 p = .022^*$
<b>BRIEF</b>	Total: 47.89 (7.0) Behavioral: 50.67 (7.0) Emotional: 48.94 (6.6) Cognitive: 47.00 (8.0)	Total: 53.75 (8.3) LP: 48.17 (6.27) VP: 54.94 (8.77) EP: 55.43 (7.25) Behavioral: 52.19 (8.3) LP: 48.83 (4.31) VP: 52.17 (8.47) EP: 55.14 (10.07) Emotional: 51.77 (9.6)	Total: $t = -2.64 p = .012^*$ Behavioral: $t = -0.69 p = .496$ Emotional: $t = -1.21 p = .231$ Cognitive: $t = -2.99 p = .005^*$

	LP: 48.33 (5.09) VP: 52.56 (10.29) EP: 52.71 (11.24) Cognitive: 54.71 (9.8) LP: 48.67 (7.89) VP: 56.28 (10.94) EP: 55.86 (6.69)		
<b>PSI</b>	Total stress: 57.83 (12.7) Parental distress: 20.44 (6.3) Dysfunctional interaction: 18.39 (3.5) Difficult Child: 19.00 (4.8) Defensiveness Response: 12.56 (4.2)	Total stress: 67.30 (10.6) LP: 67.50 (6.83) VP: 65.53 (11.45) EP: 71.43 (11.16) Parental distress: 22.53 (4.5) LP: 21.83 (2.86) VP: 22.06 (4.78) EP: 24.29 (4.96) Dysfunctional interaction: 21.57 (4.8) LP: 22.50 (4.18) VP: 20.47 (5.33) EP: 23.43 (3.31) Difficult Child: 23.20 (5.4) LP: 23.17 (1.94) VP: 23.00 (6.11) EP: 23.71 (6.07) Defensiveness Response: 14.10 (3.6) LP: 13.67 (2.50) VP: 13.65 (3.97) EP: 15.57 (3.60)	Total stress: $t = -2.66, p = .012^*$ Parental distress: $t = -1.24, p = .226$ Dysfunctional interaction: $t = -2.66, p = .011^*$ Difficult Child: $t = -2.82, p = .008^*$ Defensiveness Response $t = -1.31, p = .201$

**Table S3** Parent-reported questionnaires: Descriptive statistics divided for level of prematurity

	<b>Full-term children</b>	<b>Preterm children</b>
<b>ERT Tot</b>	73.55% (5.10)	69.80% (7.41) LP: 70.09 (5.12) VP: 70.21 (8.97) EP: 68.37 (5.23)
<b>ERT Positive Emotions</b>	86.61% (9.12)	80.15% (12.35) LP: 83.59 (14.15) VP: 78.29 (12.56) EP: 81.25 (10.21)
<b>ERT Negative Emotions</b>	61.46% (8.35)	58.82% (10.67) LP: 59.38 (6.89) VP: 59.70 (12.67) EP: 55.80 (8.73)

**Table S4** Percentage of correct responses at the Emotion Recognition Task (ERT): Descriptive statistics divided for level of prematurity