

Supplementary Table 1 Univariable analysis showing independent covariate associations for prenatal alcohol exposure (PAE), cognition, language and motor development (Bayley III) at 24 months

Characteristic	Exposure*			Child outcome score (Bayley III) at 24 months**								
	N	(%)	p value	Cognition			Language			Motor		
				Mean	β	p value	Mean	β	p value	Mean	β	p value
Maternal age (n=554)			<0.01									
<25 years	11	(2.0)		94.6	-12.85	<0.01	95.5	-13.0	0.02	107.9	-2.18	0.61
25-29 years	132	(23.8)		106.3	-1.11	0.44	106.3	-2.2	0.28	110.1	-0.04	0.98
30-34 years	246	(44.4)		107.4	Reference		108.5	Reference		110.1	Reference	
>=35 years	165	(28.8)		106.1	-1.28	0.34	106.4	-2.0	0.27	112.4	2.36	0.09
Maternal education (n=553)			0.37									
Secondary	65	(11.7)		102.2	-6.28	<0.001	101.9	-7.43	<0.01	106.5	-5.80	<0.01
Trade/Diploma	115	(20.8)		102.5	-6.03	<0.001	102.8	-6.53	<0.01	108.3	-3.99	<0.01
Tertiary	373	(67.3)		108.5	Reference		109.3	Reference		112.3	Reference	
Household income (n=543)			0.21									
<\$40,000	60	(11.0)		102.3	-5.96	<0.01	102.7	-6.93	<0.01	108.7	-3.72	0.06
\$40-70,000	73	(13.4)		102.9	-5.42	<0.01	102.1	-7.50	<0.01	106.6	-5.75	<0.01
\$71-100,000	143	(26.3)		106.7	-1.62	0.24	106.3	-3.34	0.08	110.5	-1.93	0.18
>\$100,000	267	(49.2)		108.3	Reference		109.6	Reference		112.4	Reference	
Region of residence (n=551)			0.30									
Metropolitan	537	(97.5)		106.5	Reference		107.1	Reference		110.8	Reference	
Rural	14	(2.5)		106.1	-0.42	0.91	102.4	-4.68	0.35	111.9	1.06	0.78
Socioeconomic index (n=552)			0.60									
Lowest quartile	22	(4.0)		106.6	-0.22	0.94	104.7	-3.39	0.41	111.3	-0.04	0.99
Second quartile	55	(10.0)		104.2	-2.63	0.18	104.4	-3.76	0.17	111.0	-0.25	0.90
Third quartile	169	(30.6)		106.5	-0.31	0.81	106.2	-1.93	0.28	109.8	-1.51	0.26
Highest quartile	306	(55.4)		106.8	Reference		108.1	Reference		111.3	Reference	
Ethnicity (n=554)			<0.01									
Caucasian	497	(89.7)		106.5	Reference		107.6	Reference		110.6	Reference	
Asian/other	57	(10.3)		106.1	-0.40	0.83	102.8	-4.83	0.06	111.9	1.27	0.51
Language spoken at home (n=517)			0.06									
English always	477	(92.3)		106.7	Reference		107.7	Reference		110.8	Reference	
English sometimes/never	40	(7.7)		106.5	-0.22	0.92	102.4	-5.23	0.09	111.4	0.63	0.78
Parity (n=549)			0.04									
None	285	(51.9)		107.4	Reference		108.0	Reference		109.9	Reference	
1 child	203	(37.0)		106.3	-1.07	0.38	107.1	-0.87	0.61	111.3	1.35	0.29
>1 children	61	(11.1)		103.1	-4.24	0.02	103.4	-4.56	0.08	112.9	2.97	0.13
BMI (n=543)			0.04									
Normal	338	(62.2)		107.7	Reference		108.6	Reference		111.7	Reference	
Underweight	22	(4.0)		109.1	1.40	0.63	107.6	-1.04	0.80	110.9	-0.78	0.80
Overweight	102	(18.8)		106.1	-1.61	0.28	107.6	-1.05	0.61	109.6	-2.10	0.18
Obese	81	(14.9)		102.0	-5.66	<0.01	99.8	-8.87	<0.001	108.5	-3.13	0.07
30min moderate exercise in trimester 1(n=551)			<0.01									
None	63	(11.4)		104.4	-1.75	0.33	105.8	-0.94	0.71	111.5	1.01	0.59
1-3 days/week	385	(69.9)		106.1	Reference		106.8	Reference		110.5	Reference	
4-7 days/week	103	(18.7)		108.7	2.57	0.08	109.0	2.20	0.29	110.9	0.39	0.80
Healthy diet (n=553)			0.51									
Lowest tertile	165	(29.8)		104.0	-2.73	0.05	104.0	-2.78	0.16	109.1	-1.69	0.25
Second tertile	194	(35.1)		106.7	Reference		106.9	Reference		110.8	Reference	
Highest tertile	194	(35.1)		108.5	1.73	0.20	110.1	3.28	0.08	112.1	1.26	0.37
Folate in trimester 1 (n=554)			0.30									
None	21	(3.8)		99.5	-8.29	<0.01	100.7	-7.72	0.07	106.3	-5.17	0.10
<400ug	156	(28.2)		105.2	-2.65	0.05	105.1	-3.26	0.09	109.8	-1.68	0.23
400-500ug	251	(45.3)		107.8	Reference		108.4	Reference		111.5	Reference	
501-800ug	96	(17.3)		106.3	-1.56	0.33	109.1	0.71	0.75	112.1	0.66	0.69
>800ug	30	(5.4)		108.2	0.36	0.89	104.5	-3.92	0.27	108.3	-3.13	0.24
Folate in trimesters 2/3 (n=554)			0.63									
None	53	(9.6)		100.9	-6.02	<0.01	100.6	-7.62	<0.01	107.4	-4.29	0.04
<400ug	111	(20.0)		106.0	-1.02	0.51	105.3	-2.93	0.17	109.0	-2.64	0.10
400-500ug	216	(39.0)		107.0	Reference		108.2	Reference		111.7	Reference	
501-800ug	146	(26.3)		108.3	1.29	0.37	108.8	0.55	0.78	111.7	0.04	0.98
>800ug	28	(5.0)		106.4	-0.54	0.84	109.3	1.08	0.77	111.5	-0.14	0.96
Smoking in pregnancy (n=554)			0.03									
No	466	(84.1)		107.2	Reference		107.9	Reference		111.2	Reference	
Smoked pre-aware	63	(11.4)		104.8	-2.31	0.20	106.6	-1.30	0.60	109.8	-1.43	0.44
Continued smoking	25	(4.5)		98.6	-8.55	<0.01	93.6	-14.32	<0.001	103.6	-7.60	<0.01

* Pearson chi2 p value for categorical variables; univariate linear regression p value for continuous variables

** Univariate linear regression

SupplementaryTable 1 continued Univariable analysis showing independent covariate associations for prenatal alcohol exposure (PAE), cognition, language and motor development (Bayley III) at 24 months

			Exposure*	Child outcome score (Bayley III) at 24 months**								
			PAE	Cognition			Language			Motor		
	N	(%)	p value	Mean	β	p value	Mean	β	p value	Mean	β	p value
Age started drinking regularly (n=554)			<0.001									
< 18 years	217	(39.2)		106.4	-0.14	0.91	107.9	1.11	0.52	109.8	<1.38	0.28
>= 18 years	257	(46.4)		106.5	Reference		106.8	Reference		111.2	Reference	
Not regularly	80	(14.4)		106.8	0.23	0.89	105.6	-1.18	0.62	111.9	0.67	0.71
Biological father pre-pregnancy drinking pattern (n=536)			<0.001									
Abstinent	28	(5.2)		107.3	Reference		104.4	Reference		109.0	Reference	
Light & occasional	158	(29.5)		108.1	0.72	0.79	108.7	4.29	0.26	111.3	2.37	0.40
Low moderate	155	(28.9)		106.4	-0.97	0.72	106.8	2.39	0.53	110.8	1.86	0.51
Moderate	151	(28.2)		106.0	-1.36	0.62	107.0	2.63	0.49	111.4	2.43	0.39
Frequent	44	(8.2)		103.4	-3.91	0.22	105.3	0.93	0.74	108.8	-0.19	0.95
Child sex (n=554)			0.51									
Male	279	(50.4)		103.8	Reference		102.0	Reference		109.2	Reference	
Female	275	(49.6)		109.2	5.37	<0.001	112.3	5.37	<0.001	112.3	3.17	<0.01
Breastfeeding (n=517)			<0.01									
None	23	(4.4)		101.3	-8.54	<0.01	99.3	-12.01	<0.01	111.9	-1.12	0.70
< 6 months	100	(19.3)		104.6	-5.29	<0.01	104.4	-6.90	<0.01	109.4	-3.69	0.02
6-12 months	137	(26.5)		103.6	-6.27	<0.001	103.5	-7.85	<0.001	107.6	-5.39	<0.001
>12 months	257	(49.7)		109.8	Reference		111.3	Reference		113.0	Reference	
General family functioning (n=537)			0.51									
Normal	480	(89.4)		106.7	Reference		107.4	Reference		110.7	Reference	
Abnormal	57	(10.6)		105.1	-1.63	0.38	106.1	-1.27	0.63	110.6	-0.11	0.96
Parental warmth (n=539)			0.02									
Lowest quartile	159	(29.5)		107.0	0.71	0.57	107.9	1.07	0.54	110.7	-0.01	0.99
Other quartiles	380	(70.5)		106.3	Reference		106.9	Reference		110.7	Reference	
Hostile parenting (n=539)			0.52									
Lowest quartile	104	(80.7)		104.9	1.99	0.17	107.7	2.81	0.16	110.6	-0.77	0.61
Other quartiles	435	(19.3)		106.9	Reference		104.9	Reference		111.3	Reference	
Maternal rating of self-efficacy (n=531)			0.66									
Low	19	(3.6)		103.2	-3.51	0.26	103.3	-4.03	0.35	109.7	-0.99	0.76
High	512	(96.4)		106.7	Reference		107.4	Reference		110.7	Reference	
	Mean	(SD)	p value		β	p value		β	p value		β	p value
Child birthweight (n=550)												
	3493	(485)	0.39		-0.0002	0.87		0.0008	0.62		0.002	0.19
Maternal mental health at 24 months (n=538)												
Depression	3.58	(5.86)	0.70		-0.24	0.02		-0.38	<0.01		-0.18	0.07
Anxiety	2.62	(4.48)	0.80		-0.30	0.02		-0.42	0.02		-0.20	0.14
Stress	8.38	(7.22)	0.20		-0.02	0.84		-0.04	0.73		-0.07	0.42

* Pearson chi2 p value for categorical variables; univariate linear regression p value for continuous variables

** Univariate linear regression

Supp Table 2 Mother's response to Bayley III invitation and prenatal alcohol exposure, maternal age and education

	Bayley III invitation response ^a						P value ^c
	No response		Declined		Attended		
Total number	251		292		557		
	No response		Declined		Attended		
Prenatal alcohol exposure	N	(%)	N	(%)	N	(%)	
Abstinent throughout pregnancy	77	(30.7)	97	(33.2)	127	(22.8)	
Low in T1 ^b , abstinent in T2 and T3	24	(9.6)	37	(12.7)	65	(11.7)	
Moderate/high in T1, abstinent in T2 and T3	33	(13.2)	48	(16.4)	74	(13.3)	
Binge pre-aware, abstinent in T2 and T3	33	(13.2)	23	(7.9)	52	(9.3)	
Low in T1, low/moderate in T2 and/or T3	17	(6.8)	22	(4.5)	61	(11.0)	
Moderate in T1, any level in T2 and/or T3	36	(14.3)	33	(11.3)	96	(17.0)	
Binge pre-aware, low/moderate in T2 and/or T3	31	(12.3)	32	(11.0)	82	(14.7)	0.008 ^d
Maternal age							
<25 years	23	(9.2)	22	(2.0)	11	(7.5)	
25-29 years	71	(28.3)	92	(31.5)	134	(24.1)	
30 to 34 years	85	(33.9)	113	(38.7)	247	(44.3)	<0.001
35 years and over	72	(28.7)	65	(22.3)	165	(29.6)	
Maternal education							
Secondary	59	(23.6)	60	(20.6)	65	(11.7)	
Trade/Diploma	79	(31.6)	90	(30.8)	116	(20.9)	
Tertiary	112	(44.8)	142	(48.6)	375	(67.5)	<0.001

^a Excludes 3 non-responders, 4 decliners and 7 attendees whose prenatal alcohol exposure category did not fall into any of the above

^b T1, T2, T3: Trimesters one, two and three

^c Pearson chi square test for heterogeneity

^d p value when omitting abstinent category is 0.125

Supp Table 3 Mother's response to Bayley III invitation and self-report of child development at 24 months,

	Bayley III invitation response						
	No response		Declined		Attended		P value ^a
Brief Infant-Toddler Social and Emotional Assessment	N	(%)	N	(%)	N	(%)	
Possible problem	4/90	(4.4)	14/153	(9.2)	54/541	(10.0)	0.84
Possible competence deficit	5/90	(5.6)	9/155	(5.8)	37/541	(6.8)	0.24
Infant & Toddler Sensory Profile (< - 1SD)							
Low registration	12/85	(14.1)	30/152	(19.7)	105/523	(20.1)	0.43
Sensation seeking	14/85	(16.5)	17/145	(11.7)	79/525	(15.1)	0.53
Sensory sensitivity	19/89	(21.3)	32/151	(21.2)	90/524	(17.2)	0.40
Sensation avoiding	16/85	(12.3)	33/154	(11.0)	118/533	(14.7)	0.79

^a Pearson chi square test for heterogeneity