

Supplementary Online Content

Kaiser JR, Bai S, Gibson N, et al. Association between transient newborn hypoglycemia and fourth-grade achievement test proficiency: a population-based study. *JAMA Pediatr*. Published online August 24, 2015. *JAMA Pediatr*. doi:10.1001/jamapediatrics.2015.1631.

eTable 1. Comparison of Matched and Unmatched Cohorts

eTable 2. Variables Associated With Literacy and Mathematics Achievement-Test Proficiency by Hypoglycemia Cutoffs: <35, <40, and <45 mg/dL Excluding ELGANS

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Comparison of Matched and Unmatched Cohorts

Variable	Matched	Unmatched	Equivalent ^a
	(n = 1395)	(n = 548)	
Newborn Characteristics			
Birth weight, mean (SD), g	2882 ± 853	2791 ± 904	Y
EGA, mean (SD), weeks	36.8 ± 3.8	36.5 ± 4.0	Y
Gestational age group, n (%)			
FT	954 (68.4)	353 (64.4)	Y
LPT	219 (15.7)	90 (16.5)	Y
PT	165 (11.8)	73 (13.3)	Y
ELGAN	57 (4.1)	32 (5.8)	Y
Size at birth, n (%)			
AGA	1116 (80.0)	443 (80.8)	Y
LGA	89 (6.4)	29 (5.3)	Y
SGA	190 (13.6)	76 (13.9)	Y
Race, n (%)			
Black	652 (46.7)	185 (33.8)	N
White	669 (48.0)	313 (57.1)	Y
Other	74 (5.3)	50 (9.1)	Y
Male, n (%)	703 (50.4)	291 (53.1)	Y
Apgar 1 minute, median [IQR]	8 (7, 9)	8 (7, 9)	Y
Apgar 5 minutes, median [IQR]	9 (8, 9)	9 (8, 9)	Y
Multifetal gestation, n (%)	82 (5.9)	52 (9.5)	Y
Polycythemia, n (%)	26 (1.9)	22 (4.0)	Y
Maternal Characteristics			
Maternal age, mean (SD), years	24.0 ± 6.1	24.9 ± 6.1	Y
Insurance, n (%)			
Medicaid	1052 (75.4)	346 (63.1)	N
Private	258 (18.5)	149 (27.2)	Y
Other	85 (6.1)	53 (9.7)	Y
Maternal education, n (%)			
<High school	437 (33.2)	129 (28.2)	Y
High school graduate	546 (41.4)	160 (35.0)	Y
Variable			
	Matched	Unmatched	Equivalent^a
	(n = 1395)	(n = 548)	
>High school	334 (25.4)	168 (36.8)	Y
Gravity, median [IQR]	2 (1, 3)	2 (1, 3)	Y
No prenatal care, n (%)	39 (2.8)	14 (2.6)	Y
Maternal diabetes, n (%)			
Non-diabetic	1327 (95.1)	532 (97.1)	Y
Pre-pregnancy	33 (2.4)	5 (0.9)	Y
Gestational	35 (2.5)	11 (2.0)	Y
Vaginal delivery, n (%)	963 (69.0)	375 (68.4)	Y

PIH, n (%)	275 (19.7)	85 (15.5)	Y
PROM, n (%)	188 (13.5)	75 (13.7)	Y
Chorioamnionitis, n (%)	63 (4.5)	38 (6.9)	Y
Meconium, n (%)	135 (9.7)	51 (9.4)	Y
Smoking, n (%)	31 (2.2)	17 (3.1)	Y
Substance abuse, n (%)	30 (2.2)	16 (2.9)	Y

Abbreviations: SD, standard deviation; EGA, estimated gestational age; FT, full-term; LPT, late preterm; PT, preterm; ELGAN, extremely low gestational age newborn; AGA, appropriate for gestational age; LGA, large for gestational age; SGA, small for gestational age; IQR, interquartile range; PIH, pregnancy-induced hypertension; PROM, premature rupture of the membrane.

a Equivalence (assuming 15% margin) indicated if inferiority and superiority tests were simultaneously rejected at $P = .05$.

eTable 2. Variables Associated With Literacy and Mathematics Achievement-Test Proficiency by Hypoglycemia Cutoffs: <35, <40, and <45 mg/dL Excluding ELGANS^a

Variable	Literacy			Mathematics		
	<35 mg/dL ^b	<40 mg/dL ^c	<45 mg/dL ^c	<35 mg/dL ^b	<40 mg/dL ^c	<45 mg/dL ^c
	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)
Hypoglycemia	0.51 (0.30-0.87)	0.45 (0.29-0.70)	0.62 (0.44-0.86)	0.49 (0.29-0.82)	0.51 (0.33-0.78)	0.72 (0.52-1.003)
Gestational age group						
FT	Ref	Ref	Ref	Ref	Ref	Ref
LPT	0.83 (0.58-1.20)	0.86 (0.60-1.25)	0.86 (0.60-1.25)	0.88 (0.61-1.28)	0.91 (0.63-1.32)	0.90 (0.62-1.30)
PT	0.88 (0.58-1.34)	0.96 (0.63-1.47)	0.88 (0.58-1.34)	0.76 (0.50-1.16)	0.79 (0.52-1.21)	0.73 (0.48-1.10)
Race						
Black	Ref	Ref	Ref	Ref	Ref	Ref
White	2.88 (2.20-3.77)	2.90 (2.21-3.81)	2.87 (2.19-3.76)	2.87 (2.18-3.78)	2.89 (2.19-3.81)	2.85 (2.17-3.75)
Other	4.13 (2.23-7.68)	4.12 (2.22-7.66)	4.15 (2.23-7.71)	2.82 (1.52-5.22)	2.78 (1.50-5.15)	2.78 (1.50-5.14)
Male	0.53 (0.41-0.68)	0.53 (0.41-0.69)	0.53 (0.41-0.69)	0.83 (0.64-1.08)	0.84 (0.65-1.09)	0.84 (0.64-1.08)
Multifetal gestation	0.50 (0.26-0.95)	0.48 (0.25-0.93)	0.47 (0.25-0.92)	0.68 (0.36-1.27)	0.66 (0.35-1.24)	0.65 (0.35-1.22)
Insurance						
Medicaid	Ref	Ref	Ref	Ref	Ref	Ref
Other	0.87 (0.50-1.50)	0.87 (0.50-1.51)	0.89 (0.52-1.54)	1.27 (0.72-2.25)	1.28 (0.72-2.26)	1.30 (0.74-2.29)
Private	1.74 (1.17-2.61)	1.74 (1.16-2.60)	1.73 (1.16-2.60)	1.80 (1.18-2.75)	1.79 (1.17-2.73)	1.79 (1.17-2.73)
Maternal education						
<High school	Ref	Ref	Ref	Ref	Ref	Ref
High school graduate	1.58 (1.17-2.13)	1.56 (1.16-2.11)	1.57 (1.16-2.12)	1.32 (0.98-1.79)	1.32 (0.98-1.78)	1.33 (0.99-1.80)
>High school	2.90 (1.98-4.25)	2.86 (1.95-4.19)	2.87 (1.96-4.21)	2.20 (1.49-3.23)	2.17 (1.48-3.20)	2.18 (1.48-3.21)
Gravity						
1	Ref	Ref	Ref	Ref	Ref	Ref
2-3	0.57 (0.42-0.77)	0.58 (0.43-0.79)	0.57 (0.42-0.77)	0.81 (0.60-1.09)	0.82 (0.60-1.11)	0.79 (0.59-1.07)
>3	0.40 (0.27-0.58)	0.41 (0.28-0.60)	0.40 (0.27-0.58)	0.51 (0.35-0.74)	0.52 (0.36-0.75)	0.50 (0.35-0.73)

Abbreviations: aOR, adjusted odds ratio; CI, confidence interval; FT, full-term; LPT, late preterm; PT, preterm; ELGAN, extremely low gestational age newborn.

SI conversion factors: To convert glucose to mmol/L, multiply values by 0.0555.

^a Multivariate regression analysis displayed as adjusted odds ratios and 95% CI.

^b Primary hypoglycemia cutoff.

^c Secondary hypoglycemia cutoff.