

Cognitive development in children exposed to maternal treatment with selective serotonin reuptake inhibitors during pregnancy and breastfeeding

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Introduction

Among new mothers, there is a concern that treatment with selective serotonin reuptake inhibitors (SSRIs) during breastfeeding could negatively affect the cognitive development of the breastfed infant, but this has not been previously studied.

Methods

In the MotherToBaby California cohort, in a subgroup of children whose mothers were treated with SSRIs during pregnancy, the composite scores of Wechsler Scales of Preschool and Primary Intelligence (WPPSI)* for full-scale intelligence quotient (FSIQ), verbal IQ (VIQ) and performance IQ (PIQ) were compared between children exposed to SSRIs during breastfeeding, breastfed children not exposed to SSRIs and children who were not breastfed.

The data was collected between 1989 and 2012, and adjusted mean IQs were compared with analysis of covariance adjusted for child age at testing, sex, and prematurity.

Results

Data were collected from 97 SSRI-exposed children. The adjusted mean FSIQ and PIQs of the 22 (22.7%) breastfed children exposed to SSRIs were significantly higher than of the 38 (39.1%) non-breastfed children (Figure; Adj. 1, Table 1), but these differences were no longer significant after further adjustment for maternal use of psychotropic comedications, alcohol and depressive symptoms during pregnancy (Adj. 2, Table 1). There was no difference between groups in mean adjusted VIQ.

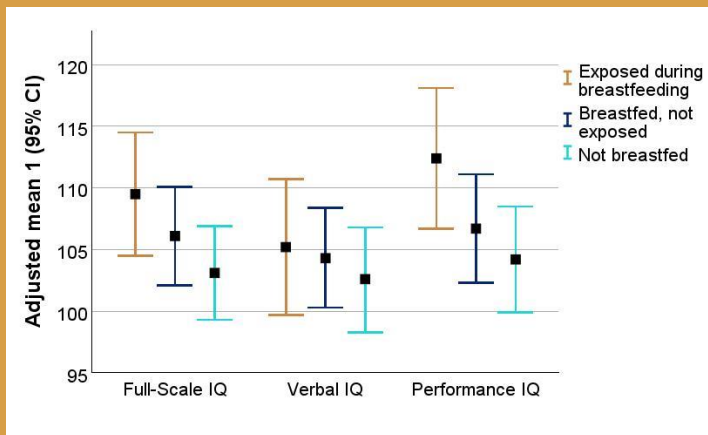
The differences between breastfed children exposed to SSRIs and the 37 (38.1%) breastfed children not exposed to SSRIs were not statistically significant (Table 2).



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Child Cognitive Performance was Not Significantly Affected by Exposure to SSRIs through Breast Milk

**Additional Tables****Table 1. Cognitive Performance of Breastfed Children Exposed to SSRIs compared to Non-breastfed Children**

Score	SSRI exposed during breastfeeding		Not breastfed		p	
	Adj. Mean 1 (95% CI)	Adj. Mean 2 (95% CI)	Adj. Mean 1 (95% CI)	Adj. Mean 2 (95% CI)		
FSIQ	109.4 (104.5, 114.4)	108.3 (102.4, 114.1)	103.1 (99.3, 106.9)	104.8 (100.2, 109.3)	0.046	0.522
VIQ	105.1 (99.5, 110.7)	105.0 (98.2, 111.7)	102.6 (98.3, 106.8)	105.7 (100.4, 111.1)	0.477	0.871
PIQ	112.3 (106.7, 118.0)	110.9 (104.1, 117.7)	104.2 (99.9, 108.5)	105.0 (99.6, 110.4)	0.025	0.210

Table 2. Comparison of Cognitive Performance of Breastfed Children with and without Postnatal Exposure to SSRIs

Score	SSRI exposed during breastfeeding		Breastfed, not exposed to SSRIs		p	
	Adj. Mean 1 (95% CI)	Adj. Mean 2 (95% CI)	Adj. Mean 1 (95% CI)	Adj. Mean 2 (95% CI)		
FSIQ	109.6 (104.4, 114.8)	109.4 (103.9, 114.9)	106.1 (102.1, 110.1)	105.9 (101.7, 110.2)	0.289	0.327
VIQ	105.3 (100.0, 110.6)	106.3 (100.6, 112.0)	104.3 (100.3, 108.4)	104.1 (99.7, 108.6)	0.770	0.556
PIQ	112.5 (106.7, 118.2)	110.7 (104.5, 116.9)	106.7 (102.3, 111.1)	106.6 (101.8, 111.4)	0.119	0.304