# Breastfeeding duration appears associated with intelligence later in life

July 29 2013

Breastfeeding longer is associated with better receptive language at 3 years of age and verbal and nonverbal intelligence at age 7 years, according to a study published by *JAMA Pediatrics*.

Evidence supports the relationship between breastfeeding and health benefits in infancy, but the extent to which breastfeeding leads to better cognitive development is less certain, according to the study background.

Mandy B. Belfort, M.D., M.P.H., of Boston Children's Hospital, and colleagues examined the relationships of breastfeeding duration and exclusivity with child cognition at ages 3 and 7 years. They also studied the extent to which maternal fish intake during lactation affected associations of infant feeding and later cognition. Researchers used assessment tests to measure cognition.

"Longer breastfeeding duration was associated with higher Peabody Picture Vocabulary Test score at age 3 years (0.21; 95% CI, 0.03-0.38 points per month breastfed) and with higher intelligence on the Kaufman Brief Intelligence Test at age 7 years (0.35; 0.16-0.53 verbal points per month breastfed; and 0.29; 0.05-0.54 nonverbal points per month breastfed)," according to the study results. However, the study also noted that breastfeeding duration was not associated with Wide Range Assessment of Memory and Learning scores.

As for fish intake (less than 2 servings per week vs. greater than or equal to 2 servings), the relationship between breastfeeding duration and the

Wide Range Assessment of Visual Motor Abilities at 3 years of age appeared to be stronger in children of women with higher vs. lower fish intake, although this finding was not statistically significant, the results also indicate.

"In summary, our results support a causal relationship of breastfeeding in infancy with receptive language at age 3 and with verbal and nonverbal IQ at school age. These findings support national and international recommendations to promote exclusive breastfeeding through age 6 months and continuation of breastfeeding through at least age 1 year," the authors conclude.

In an editorial, Dimitri A. Christakis, M.D., M.P.H., of the Seattle Children's Hospital Research Institute, writes: "The authors reported an IQ benefit at age 7 years from breastfeeding of 0.35 points per month on the verbal scale and 0.29 points per month on the nonverbal one. Put another way, breastfeeding an infant for the first year of life would be expected to increase his or her IQ by about four points or one-third of a standard deviation."

"However, the problem currently is not so much that most women do not initiate breastfeeding, it is that they do not sustain it. In the United States about 70 percent of women overall initiate breastfeeding, although only 50 percent of African American women do. However, by six months, only 35 percent and 20 percent, respectively, are still breastfeeding," Christakis continues.

"Furthermore, workplaces need to provide opportunities and spaces for mothers to use them. Fourth, breastfeeding in public should be destigmatized. Clever social media campaigns and high-quality public service announcements might help with that. As with lead, some of these actions may require legislative action either at the federal or state level. Let's allow our children's cognitive function be the force that tilts the

scale, and let's get on with it," Christakis concludes.

**More information:** JAMA Pediatr. Published online July 29, 2013. doi:10.1001/jamapediatrics.2013.455
JAMA Pediatr. Published online July 29, 2013. doi:10.1001/jamapediatrics.2013.470