Duration of breastfeeding during infancy does not reduce a child's risk of being overweight, obese, study reports

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In research that included nearly 14,000 healthy infants in Belarus, an intervention that succeeded in improving the duration and exclusivity of breastfeeding during infancy did not result in a lower risk of overweight or obesity among the children at age 11.5 years, according to a study appearing in the March 13 issue of *JAMA*.

Observational studies suggest that greater duration and exclusivity of having been breastfed reduces child obesity risk. "However, breastfeeding and growth are socially patterned in many settings," and observed associations between these variables are at least partly explained by confounding factors, according to background information in the article.

Richard M. Martin, Ph.D., of the University of Bristol, England, and colleagues investigated the effects of an intervention to promote increased duration and exclusivity of breastfeeding on child adiposity (body fat) and circulating insulin-like growth factor 1 (IGF-1), which regulates growth. The randomized controlled trial was conducted in 31 Belarusian maternity hospitals and their affiliated clinics. Participants were randomized into 1 of 2 groups: breastfeeding promotion intervention or usual practices. Participants were 17,046 breastfeeding mother-infant pairs enrolled in 1996 and 1997, of whom 13,879 (81.4 percent) were followed up between January 2008 and December 2010 at a median (midpoint) age of 11.5 years. The breastfeeding promotion

intervention was modeled on the WHO/UNICEF Baby-Friendly Hospital Initiative (World Health Organization/United Nations Children's Fund). The main outcome measures were body mass index (BMI), fat and fat-free mass indices (FMI and FFMI), percent body fat, waist circumference, triceps and subscapular skinfold thicknesses, overweight and obesity, and whole-blood IGF-1.

As previously reported, the researchers found that infants in the intervention group had substantially increased breastfeeding duration and exclusivity vs. the control group: at 3 months, exclusively (43.3 percent vs. 6.4 percent) and predominantly (51.9 vs. 28.3 percent) breastfed; at 6 months, both exclusive (7.9 percent vs. 0.6 percent) and predominant breastfeeding (10.6 percent vs. 1.6) were lower, but more common in the intervention group; and at 12 months, 19.7 percent (intervention) vs. 11.4 percent (control), were still breastfeeding to any degree.

At followup, when children were a median 11.5 years age, there were no significant differences between the experimental vs. control groups for the main outcomes, with the cluster-adjusted mean [average] differences of 0.19 (95 percent CI, -0.09 to 0.46) for BMI; 0.12 for FMI; 0.04 for FFMI; 0.47 percent for percent body fat; 0.30 cm for waist circumference; -0.07 mm for triceps and -0.02 mm for subscapular skinfold thicknesses; and -0.02 standard deviations for IGF-1.

The cluster-adjusted odds ratio for overweight/obesity (BMI ≥85th vs.