

## Feeding at the Breast and Expressed Milk Feeding: Associations with Otitis Media and Diarrhea in Infants.

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### Author information

### Abstract

**OBJECTIVE:** To examine the associations of substance fed and mode of breast milk delivery with occurrence of otitis media and diarrhea in the first year of life.

**STUDY DESIGN:** At 12 months postpartum, women (n = 813; 62% response) completed a questionnaire that assessed sociodemographics, infant occurrence of otitis media and diarrhea, and the timing of starting/stopping feeding at the breast, expressed milk, and formula. Women who intended to "bottle feed" exclusively were not recruited. Logistic and negative binomial regressions were conducted in the full sample (n = 491) and no-formula (n = 106) and bottle-only (n = 49) subsamples.

**RESULTS:** Longer duration of expressed milk feeding was associated with increased odds of experiencing otitis media (6-month OR [OR6-month] 2.15, 95% CI 1.01-4.55) in the no-formula subsample. Longer durations of breast milk feeding (OR6-month 0.70, 95% CI 0.54-0.92; 6-month incidence rate ratio [IRR6-month] 0.74, 95% CI 0.63-0.91), and feeding at the breast (OR6-month 0.70, 95% CI 0.54-0.89; IRR6-month 0.74, 95% CI 0.63-0.88) were associated with less diarrhea, and longer formula feeding duration was associated with increased risk of diarrhea (IRR6-month 1.34, 95% CI 1.13-1.54) in the full sample.

**CONCLUSION:** Substance fed and mode of breast milk delivery have different contributions to infant health depending on the health outcome of interest. Feeding at the breast may be advantageous compared with expressed milk feeding for reducing the risk of otitis media, and breast milk feeding compared with formula may reduce the risk of diarrhea.

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**KEYWORDS:** breast milk expression; breastfeeding; negative binomial regression

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