

Clinical Trial Summary

Colic, Crying, Fussing, and Feeding

A non-randomized, prospective observational study

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Presentation at conference on pediatric research, Florida, November, 1994.

“It is important to identify those aspects of simple care that could have an impact on crying behavior.”

Introduction.

Colic as perceived by parents is very common and clinical advice is often sought. Since feeding practices can be manipulated, it is important to acquire evidence on the possible link between feeding and crying or colic. When using a conventional bottle, an infant creates a vacuum in the bottle that might perturb the physiology of sucking. With breastfeeding, positive milk ejection would presumably counteract this phenomenon. A company in Great Britain [AVENT Limited, Glemsford, England] has made a bottle that is designed to allow air to enter it as the baby sucks, avoiding a vacuum. Following anecdotal reports to the company that use of this bottle was associated with amelioration of colic, we elected to test this formally, since this would have implications for the etiology of the condition.

The study explored three areas related to feeding in the context of colic: breastfeeding versus bottle feeding, the design of the feeding bottle, and growth rate during the early weeks. This Summary focuses on the findings related to feeding-bottle design.

Objective.

To test the hypothesis that feeding-bottle design could influence colic or crying.

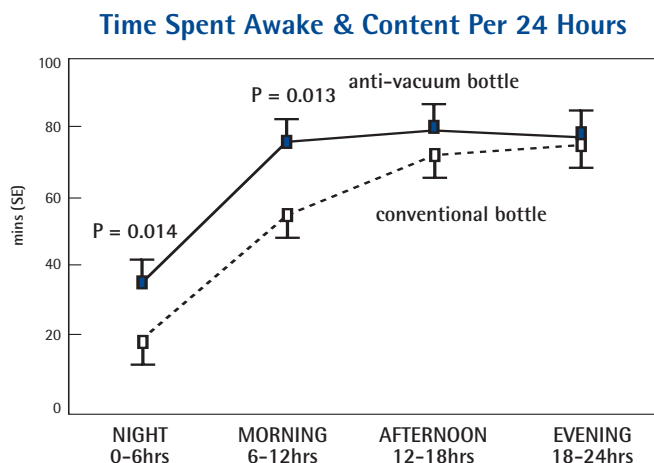
Subjects.

145 healthy, full-term infants (78 males, 67 females) were studied at 2 and 6 weeks of age. Mothers kept 3-day diaries at 2 and 6 weeks, and shaded in 5-minute periods coded for sleeping, feeding, and awake content an for three crying/colic behaviors.

Results – Antivacuum Versus Conventional Bottle

At 2 weeks:

- Infants fed with an antivacuum bottle spent significantly more time awake and content compared to those fed with a conventional bottle ($P < 0.05$). This difference was marked at night and in the morning.



- Data show a significant decreasing linear trend in colic duration from conventional bottle to antivacuum bottle to breastfeeding ($P = 0.02$).

At 6 weeks, no differences were found between bottle types.

Conclusions

The findings of this study related to feeding-bottle design provide a line of evidence that, along with findings related to breast milk versus formula and growth data, adds weight to the view that colic or distressed vocalization may relate at least in part to feeding practices.

The randomized formula-bottle trial showed that effects on behavior and possible colic duration were seen at 2 weeks but not at 6 weeks.

It may prove possible in the future to minimize distressed vocalization by modifying feeding practices.