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Clinical summary

A randomised prospective observational study comparing colic, crying, fussing and feeding in a conventional vacuum bottle (CV) versus an Philips Avent non-vacuum bottle (ANV)



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Source:

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Note: This study also explored three areas related to feeding in the context of colic such as; breastfeeding versus bottle feeding and the design of the feeding bottle on growth rates during the early weeks of life. However, this summary focuses only on the findings related to feeding bottle design.

Background

Roberts et al 2004¹ discussed that excessive crying in the first few months of a babies life can be alarming for both physicians and parents. Colic typically begins at 2 weeks of age and usually resolves by four months of age. During this time infants cry an average of 2.2 hours per day, peaking at 6 weeks of age and then gradually decreasing thereafter.

This study showed that at 2 weeks the prevalence of crying for > 3hrs per day was 43% amongst formula fed infants as compared to breast fed infants (16%). However, at 6 weeks of age the prevalence was 12% amongst formula fed infants and 31% amongst breast fed infants.

Objective

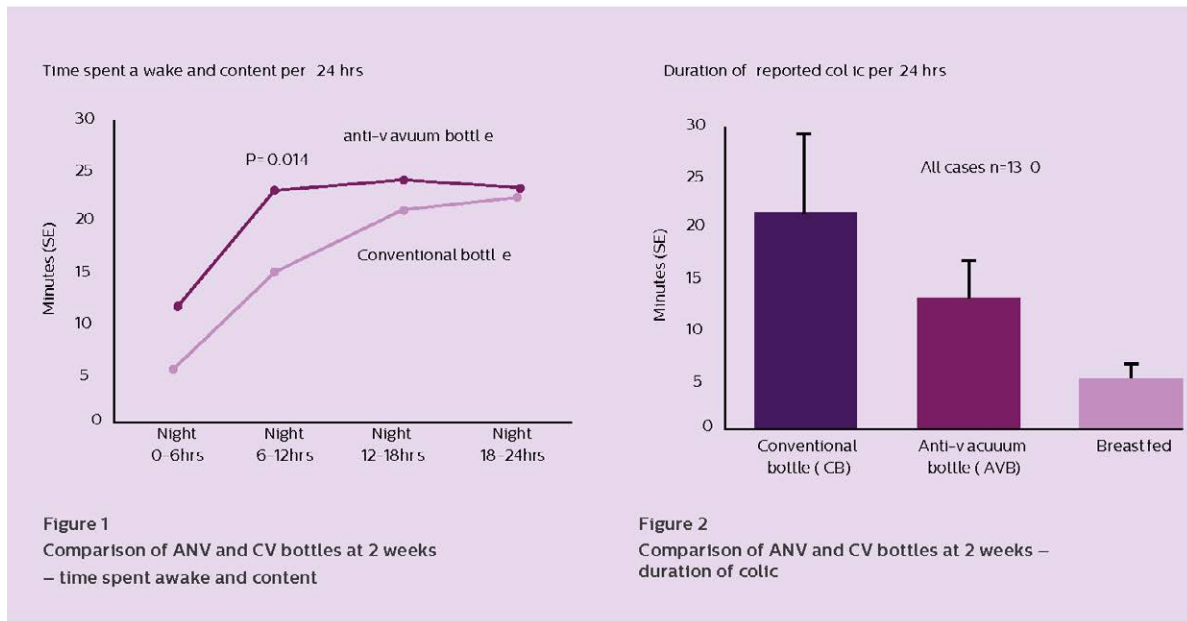
To test the hypothesis that feeding bottle design could influence colic or crying.

Method

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. Each diary was divided into four 6 hour periods and within each time of day mothers shaded in 5 min periods coded for sleeping, feeding, awake and content, fussing (baby unsettled, irritable and /or vocalizing but not continuously crying), crying and colic.

Results

- At 2 weeks infants fed with ANV bottles spent significantly more time awake and content especially at night and in the morning as compared to CV bottles. [265 [SE, 20] minutes versus 220 [SE, 13] minutes respectively $P < 0.05$). (See Figure 1)
- At 2 weeks, less colic was recorded with the ANV bottles and the duration of colic was closer to that of breast feeding. (See Figure 2)
- For all infants (with or without colic) the mean colic duration was 13 (4) minutes with ANV bottle as compared to 22 (7) minutes on the CV bottle (a difference of 9 minutes). For those infants with colic the mean colic duration was 31 (8) minutes with ANV bottle as compared to 52 (15) minutes on the CV bottle (a difference of 21 minutes).
- However, at 6 weeks there was no difference seen in terms of colic between the two bottle types.



Conclusion

The study showed that 2 weeks of age (an important time for colic and crying) bottle design can influence the behavioural outcomes for infants.