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[Intervention Review]

Antenatal breastfeeding education for increasing breastfeeding duration

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ABSTRACT

Background

Breast milk is well recognised as the best food source for infants. The impact of antenatal breastfeeding (BF) education on the duration of BF has not been evaluated.

Objectives

To assess the effectiveness of antenatal breastfeeding (BF) education for increasing BF initiation and duration.

Search methods

We searched Cochrane Pregnancy and Childbirth's Trials Register on 1 March 2016, CENTRAL (*The Cochrane Library*, 2016, Issue 3), MEDLINE (1966 to 1 March 2016) and Scopus (January 1985 to 1 March 2016). We contacted experts and searched reference lists of retrieved articles.

Selection criteria

All identified published, unpublished and ongoing randomised controlled trials (RCTs) assessing the effect of formal antenatal BF education or comparing two different methods of formal antenatal BF education, on the duration of BF. We included RCTs that only included antenatal interventions and excluded those that combined antenatal and intrapartum or postpartum BF education components. Cluster-randomised trials were included in this review. Quasi-randomised trials were not eligible for inclusion.

Data collection and analysis

We assessed all potential studies identified as a result of the search strategy. Two review authors extracted data from each included study using the agreed form and assessed risk of bias. We resolved discrepancies through discussion. We assessed the quality of the evidence using the GRADE approach.

Main results

This review update includes 24 studies (10,056 women). Twenty studies (9789 women) contribute data to analyses. Most studies took place in high-income countries such as the USA, UK, Canada and Australia. In the first five comparisons, we display the included trials according to type of intervention without pooling data. For the 'Summary of findings' we pooled data for a summary effect.

Five included studies were cluster-randomised trials: all of these adjusted data and reported adjustments as odds ratios (OR). We have analysed the data using the generic inverse variance method and presented results as odds ratios, because we were unable to derive a cluster-adjusted risk ratio from the published cluster-trial. We acknowledge that the use of odds ratio prevents the pooling of these cluster trials in our main analyses.

One method of BF education with standard (routine) care

There were no group differences for duration of any BF in days or weeks. There was no evidence that interventions improved the proportion of women with any BF or exclusive BF at three or six months. Single trials of different interventions were unable to show that education improved initiation of BF, apart from one small trial at high risk of attrition bias. Many trial results marginally favoured the intervention but had wide confidence intervals crossing the line of no effect. BF complications such as mastitis and other BF problems were similar in treatment arms in single trials reporting these outcomes.

Multiple methods of BF education versus standard care

For all trials included in this comparison we have presented the cluster-adjusted odds ratios as reported in trial publications. One three-arm study found the intervention of BF booklet plus video plus Lactation Consultant versus standard care improved the proportion of women exclusively BF at three months (OR 2.60, 95% CI 1.25 to 5.40; women = 159) and marginally at six months (OR 2.40, 95% CI 1.00 to 5.76; women = 175). For the same trial, an intervention arm without a lactation consultant but with the BF booklet and video did not have the same effect on proportion of women exclusively BF at three months (OR 1.80, 95% CI 0.80 to 4.05; women = 159) or six months (OR 0.90, 95% CI 0.30 to 2.70; women = 184). One study compared monthly BF sessions and weekly cell phone message versus standard care and reported improvements in the proportion of women exclusively BF at both three and six months (three months OR 1.80, 95% CI 1.10 to 2.95; women = 390; six months OR 2.40, 95% CI 1.40 to 4.11; women = 390). One study found monthly BF sessions and weekly cell phone messages improved initiation of BF over standard care (OR 2.61, 95% CI 1.61 to 4.24; women = 380).

BF education session versus standard care, pooled analyses for 'Summary of findings' (SoF)

This comparison does not include cluster-randomised trials reporting adjusted odds ratios. We did not downgrade any evidence for trials' lack of blinding; no trial had adequate blinding of staff and participants. The SoF table presents risk ratios for all outcomes analysed. For proportion of women exclusively BF there is no evidence that antenatal BF education improved BF at three months (RR 1.06, 95% CI 0.90 to 1.25; women = 822; studies = 3; moderate quality evidence) or at six months (RR 1.07, 95% CI 0.87 to 1.30; women = 2161; studies = 4; moderate quality evidence). For proportion of women with any BF there were no group differences in BF at three (average RR 0.98, 95% CI 0.82 to 1.18; women = 654; studies = 2; $I^2 = 60%$; low-quality evidence) or six months (average RR 1.05, 95% CI 0.90 to 1.23; women = 1636; studies = 4; $I^2 = 61%$; high-quality evidence). There was no evidence that antenatal BF education could improve initiation of BF (average RR 1.01, 95% CI 0.94 to 1.09; women = 3505; studies = 8; $I^2 = 69%$; high-quality evidence). Where we downgraded evidence this was due to small sample size or wide confidence intervals crossing the line of no effect, or both.

There was insufficient data for subgroup analysis of mother's occupation or education.

Authors' conclusions

There was no conclusive evidence supporting any antenatal BF education for improving initiation of BF, proportion of women giving any BF or exclusively BF at three or six months or the duration of BF. There is an urgent need to conduct a high-quality, randomised controlled study to evaluate the effectiveness and adverse effects of antenatal BF education, especially in low- and middle-income countries. Evidence in this review is primarily relevant to high-income settings.

PLAIN LANGUAGE SUMMARY

Antenatal breastfeeding education for increasing breastfeeding duration

What is the issue?

Breastfeeding (BF) can improve the child's health, the mother's health and mother-infant bonding. BF infants have lower rates of stomach and breathing problems, fewer ear infections and better speech, vision and overall development of physical and mental skills. The World Health Organization recommends that infants should be exclusively breastfed from birth to six months and then breastfed alongside age-appropriate, complementary feeding for two years and beyond. Many women are unable to follow these recommendations, and we want to know how to help women to breastfeed.

Why is this important?

Antenatal BF education is teaching women about BF during pregnancy, before the baby arrives. One reason women are unable to breastfeed has to do with lack of education and knowledge about how to breastfeed. We believe that improving pregnant women's knowledge of BF may help them to breastfeed longer, but we are unsure what types of education are most helpful to women.

What evidence did we find?

Antenatal breastfeeding education for increasing breastfeeding duration (Review)

We included 24 studies with 10,056 women in the review, and 20 studies involving 9789 women contributed data to the analyses. Most studies took place in high-income countries including the USA, Canada, UK and Australia. Peer counselling, lactation consultation and formal BF education during pregnancy do not appear to improve uptake of BF or duration. However, some larger trials in different settings (one in Nigeria and one in Singapore) had some evidence that education may help.

What does this mean?

We are still unsure if antenatal BF education is able to help women; at present, there is no good evidence from randomised controlled trials to suggest these efforts to educate pregnant women translate into more and longer BF. Women who receive standard care before birth tend to choose BF at about the same rate as women who have extra BF education. We are confident in the results of studies measuring women's uptake of BF at birth and BF at six months; education does not appear to impact these decisions. We have some doubts about the impact of education on exclusive BF at three and six months; education does not seem to help women, but future studies may change our understanding. Future studies are likely to change our understanding of the impact of BF education during pregnancy on BF at three months. Most of the studies in this review took place in higher income countries, so we are not confident that our conclusions are relevant in other settings.