Breastfeeding promotion interventions and breastfeeding practices: a systematic review
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CRD summary
This review found that breastfeeding education and/or support increased exclusive breastfeeding rates at birth, less than one month and at one to five months. These conclusions reflect the evidence presented and appear generally reliable. Limitations in reporting and the general focus on developing countries may limit the usefulness of the review for decision-makers in developed countries.

Authors' objectives
To assess the effects of breastfeeding education and support interventions on exclusive and partial breastfeeding.

Searching
PubMed, The Cochrane Library, EMBASE and WHO regional databases were searched to November 2012. Search terms were not reported. No language restrictions were imposed on the search.

Study selection
Randomised controlled trials (RCTs) and quasi-experimental trials were eligible for inclusion. Eligible interventions were education and/or support offered by lay counsellors or health professionals in individual or group sessions. Outcomes of interest included exclusive breastfeeding and predominant, partial and no breastfeeding (definitions reported in the paper). Studies involving premature babies or interventions other than education/support were excluded. Studies in languages other than English were excluded unless relevant outcomes were reported in the abstract.

Most included studies (76 out of 110) were performed in developed countries. Content, setting and delivery of interventions varied (brief details reported in the paper).

Two reviewers independently selected studies for inclusion. Disagreements were resolved by discussion and consensus.

Assessment of study quality
Overall quality of evidence for each outcome was rated according to GRADE criteria as adapted by the Child Health Epidemiology Reference Group (CHERG). It appeared that this involved an assessment of risk of bias but no details were reported.

Data extraction
Data were extracted to derive risk ratios (RR) and associated 95% confidence intervals (CIs) for each outcome and follow-up period.

Two reviewers independently extracted data. Disagreements were resolved by discussion and consensus.

Methods of synthesis
Data were pooled by meta-analysis using a fixed-effect (Mantel-Haenszel) or random-effects model. Heterogeneity was assessed using the X² test and I² (I²>50% represented high heterogeneity). Random-effects models were used when heterogeneity was high and this was the case in most reported analyses. Subgroup analyses were done by type of intervention (group versus individual), setting (community versus facility-based) and country (developed versus developing). Quality of evidence was rated as high, moderate, low or very low based on CHERG criteria.

Results of the review
The review included 110 studies (63 RCTs and 47 quasi-experimental studies). Quality of evidence was generally moderate or low.

Overall, educational/support interventions increased exclusive breastfeeding significantly by 43% at day one (RR 1.43, 95% CI 1.09 to 1.87), by 30% at up to one month (RR 1.30, 95% CI 1.19 to 1.42) and by 90% at one to five months (RR 1.90, 95% CI 1.54 to 2.34; I²=96%).
At one to five months the effect was greater in developing countries (RR 2.88, 95% CI 2.11 to 3.93; I²=96%) than in developed countries (RR 1.31, 95% 1.00 to 1.70; I²=92%).

Effects on predominant and partial breastfeeding were generally not statistically significant. Compared with usual care, combined individual and group counselling was more effective than individual or group counselling alone for all outcomes except rate of no breastfeeding on day one.

Results of other analyses were reported in the paper.

**Authors' conclusions**

Breastfeeding education and/or support increased exclusive breastfeeding rates and decreased no breastfeeding rates at birth, less than one month and at one to five months.

**CRD commentary**

The review question was clear and was supported by appropriate inclusion criteria. Various relevant sources were searched but efforts to locate unpublished studies were limited so relevant studies may have been missed. Appropriate methods were used to minimise errors and bias in the review process. Limited details of included studies were reported, which made it difficult to assess generalisability of the findings. Risk of bias for individual studies was not reported. Quality of evidence for each outcome was assessed and found to be moderate or low.

Meta-analyses suggested a significant effect on rates of exclusive breastfeeding but there was substantial heterogeneity and the effect was smaller in developed countries than in developing countries.

The authors’ conclusions reflect the evidence presented and appear generally reliable. Limitations in reporting and the general focus on developing countries may limit the usefulness of the review for decision-makers in developed countries.

**Implications of the review for practice and research**

**Practice**: The authors stated that breastfeeding education/support interventions should be implemented on a large scale in developing countries.

**Research**: The authors did not state any implications for further research.

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