A systematic review of education and evidence-based practice interventions with health professionals and breast feeding counsellors on duration of breast feeding

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CRD summary
This review evaluated the effects of training, education and practice change interventions with health professionals and lay breast-feeding educators/counsellors on duration of breast feeding. The authors concluded that evidence from studies was insufficient to draw conclusions about overall benefit or harm associated with the interventions. The authors' conclusions represented the evidence presented and are reliable.

Authors' objectives
To evaluate the effects of training, education and practice change interventions with health professionals and lay breast feeding educator/counsellors on duration of breast feeding.

Searching
MEDLINE, CINAHL and 17 other databases were searched without language restrictions from 1980 to June 2003 for published studies only. Three journals (Health Promotion International, Health Education Quarterly and Journal of Human Lactation) were handsearched

Study selection
Eligible studies were randomised controlled trials (RCTs), non-randomised controlled trials with concurrent controls and before-and-after studies (cohort or cross-sectional) of breast feeding interventions targeted at health care professionals that were undertaken in a developed country and that contained data on breast feeding duration. Data from time points beyond the first feed were considered breast feeding duration data. Secondary outcomes of interest were: attitude, knowledge and behaviour change among healthcare professionals; women’s views; and costs of the intervention.

Educational Interventions included those that aimed: generally to increase knowledge and support breast feeding (training courses, seminars, didactic education based on social marketing theory); to change unit philosophy by increasing staff awareness of psychological and biological aspects of breast feeding; to teach the "hands-off" technique to midwives and healthcare assistants so that they could teach mothers this technique; and introduced evidence-based guidelines supported by education sessions, newsletters, audit and feedback and educational materials. Studies were performed in UK, Italy, France, Spain and USA. Most studies were in a hospital settings; others were performed in community settings. Almost half of the studies involved mothers who lived in disadvantaged areas.

One reviewer performed study selection, independently checked by a second reviewer. Any disagreements were resolved by a third reviewer.

Assessment of study quality
Study quality was assessed using the criteria: sampling frame and method; whether or not an a priori sample size calculation was reported; clarity of inclusion and exclusion criteria; comparability of groups for possible co-factors; and reporting of withdrawals and appropriateness of analysis.

One reviewer performed study quality assessment, independently checked by a second reviewer. Any disagreements were resolved by a third reviewer.

Data extraction
Data on setting, participants, interventions, outcomes and times measured were extracted.

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resolved by a third reviewer.

Methods of synthesis
Due to the heterogeneity of the included studies, a narrative synthesis was used.

Results of the review
Nine studies were included in the review. All studies used before-and-after designs that included education of health care professional. All studies had problems with various aspects of study quality. No studies were identified that assessed breast feeding counsellors.

Educational interventions for healthcare professionals that aimed to increase knowledge and support breast feeding (six studies). These studies showed a statistically significant increase in the proportion of women who reported exclusive breast feeding at discharge, full breast feeding at three months and any breast feeding at six months (actual values not provided, p<0.05) after the introduction in eight hospitals of the 18 hour United Nations Children's Fund (UNICEF) training to prepare for the Baby Friendly Hospital Initiative (BFI) (one study, 571 health workers, 2,669 mother-baby pairs). Another study (73 midwives and paediatricians; 50 mother-baby pairs before and 50 after) of a similar intervention performed in a teaching hospital was of higher methodological quality and showed no effect on breast feeding duration, although there was a reduction in babies separated from their mothers overnight and use of formula feed in hospital. Four other studies showed mixed results.

Teaching of "hands-off" technique to hospital midwives and healthcare assistants (one study, 1,400 mothers). At two weeks after discharge there was a statistically significant increase in any breast feeding and in exclusive breast feeding (p=0.005, actual values not reported). However, at six weeks there was no significant difference.

Changing maternity unit philosophy (one study; 325 mother-baby pairs before and 325 after). At six days after discharge there was an increased in exclusive breast feeding (48% before, 90% after) and a decrease in mixed feeding (37% before, 7% after) and bottle feeding (15% before, 3% after) (statistical significance not reported).

Introduction of evidence-based guidelines supported by other strategies (one study; 702 mother before and 866 after). There was no significant difference in breast feeding initiation or duration or the number of babies readmitted to hospital, but there was an increase in readmission due to jaundice (statistical significance not reported).

Authors' conclusions
Evidence from studies was insufficient to draw conclusions about overall benefit or harm associated with the interventions.

CRD commentary
The review addressed a clear research question and was supported by adequate inclusion criteria. A number of sources were searched and there were no language restrictions, which reduced risks of language bias. It appeared that the search was limited to published studies, so there was a possibility of publication bias. Review methods were carried out by one reviewer and independently checked by a second, which reduced risks of reviewer error and bias. Given the differences between studies in terms of intervention and settings, it was appropriate that a narrative synthesis was used. However, the narrative synthesis could have been structured better.

Overall, this was a well-conducted review and the authors' conclusions represented the evidence presented and are reliable.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that there should be further testing of the Baby Friendly Hospital Initiative (BFI) within a controlled design, future research into education of health care professionals for support of breast-feeding women should have appropriate theoretical underpinning, describe educational programmes and the context of care delivery.
comprehensively and use standardised time points in the assessment of the effects of interventions. Intermediate outcomes should be reported, including those related to the effect on education and practice.

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