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## Abstract

**Background:** Exclusive breastfeeding (EBF) rates remain low in both low-income and high-income countries despite World Health Organization recommendation for EBF till 6 months. Breastfeeding has been shown to have a protective effect against gastrointestinal infection, among other benefits. Large-scale intervention focusing on educating mothers about breastfeeding has the potential to increase breastfeeding prevalence, especially EBF, to recommended standard and also to decrease infant morbidity.

**Methods:** A thematic literature research was conducted for RCT and qualitative perimenal studies comparing breastfeeding education or support to routine care. The effect of intervention was observed for exclusive, predominant, partial and no breastfeeding rates. The time interval of intervention were day 1, <1 month, and 1 to 5 months. Outcome-specific evidence was graded according to the Child Health Epidemiology Reference Group (CHERG) rating using the adapted Grading of Recommendation, Assessment, Development and Evaluation (GRADE) criteria and recommendation were made from the interlocking countries for inclusion in the Life Saved Tool (LiST) model.

**Results:** After reviewing 4600 abstracts, 372 studies were selected for full-text screening and 110 of these studies were finally included. Statistically significant increase in EBF rates as a result of breastfeeding promotion intervention were observed: 43% at day 1, 30% at <1 month, and 90% at 1-5 months. Rates of 'no breastfeeding' reduced by 32% at day 1, 30% at <1 month, and 18% at 1-5 months. The effect of intervention on the rates of predominant and partial breastfeeding were non-significant.

**Conclusions:** Breastfeeding education and/or support increased EBF rates and decreased no breastfeeding rates at birth, <1 month and 1-5 months. Combined individual and group counseling appeared to be superior to individual or group counseling alone. Intervention in developing countries had a greater impact than those in developed countries.

## Introduction



according to the CHERG data and the GRADE technique [27].

For an outcome with moderate evidence, we conducted a meta-analysis using Review Manager 5.2 [28] and used the Mantel-Haenszel random-effects (RR) and corresponding 95% confidence interval (CI). Heterogeneity

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... a e a da l b 43% (RR: 1.43, 95% CI: 1.09-1.87), a <1  
m n h b 30% (RR: 1.30, 95% CI: 1.19-1.42) and a 1-5  
m n h b 90% (RR: 1.90, 95% CI: 1.54-2.34) (Fig ... e 2).

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feeding. 13. die had .e .ed hi .c me [11,12,18, 20,36,42,46,52,58,61,72,76,85] and eigh .f he e .e e .c nd .c ed in de el .ing c .n .ie . O e.all, ed ca i nal in e .en i n had a n n- ignifican .effec .n .ed mi-



Table 2 Summary of findings for the effect of breastfeeding promotion interventions on predominant and partial breastfeeding rates. (Continued)

11	8 RCT, 3 QE [18,19,45,52,61,66,71,72,76,85,88]	Variable follow-up period Recall Criteria variable across die (past 24 hr, past week or previous month). mother in the intervention group may have reported feeding practice.	None of the die ggest benefit. Insignificant heterogeneity	5 of 11 were conducted in developing countries	Pooled relative for difference of intervention	112	151	0.88 [0.72, 1.08]	Fixed effect meta-analysis; insignificant heterogeneity Moderate evidence individual confidence and moderate facilitated evidence.	
<b>Table 2: Summary of findings for the effect of breastfeeding promotion interventions on predominant and partial breastfeeding rates. (Continued)</b>										
20	11 RCT, 9 QE [18-20,36,42,45,47,49,51,52,59,61,62,71,72,76,80,85,86,89]	Variable follow-up period Recall Criteria variable across die (past 24 hr, past week or previous month). mother in the intervention group may have reported feeding practice.	None of the die ggest benefit. Significant heterogeneity	9 of 20 were conducted in developing countries	Pooled relative for difference of intervention	524	578	0.87 [0.75, 1.02]	Random effect meta- analysis insignificant heterogeneity Moderate evidence individual confidence and moderate facilitated evidence.	



In Table 2, the relative minimum of the  
feeding volume in the initial feeding.  
24 days [18-20,34,36,42,

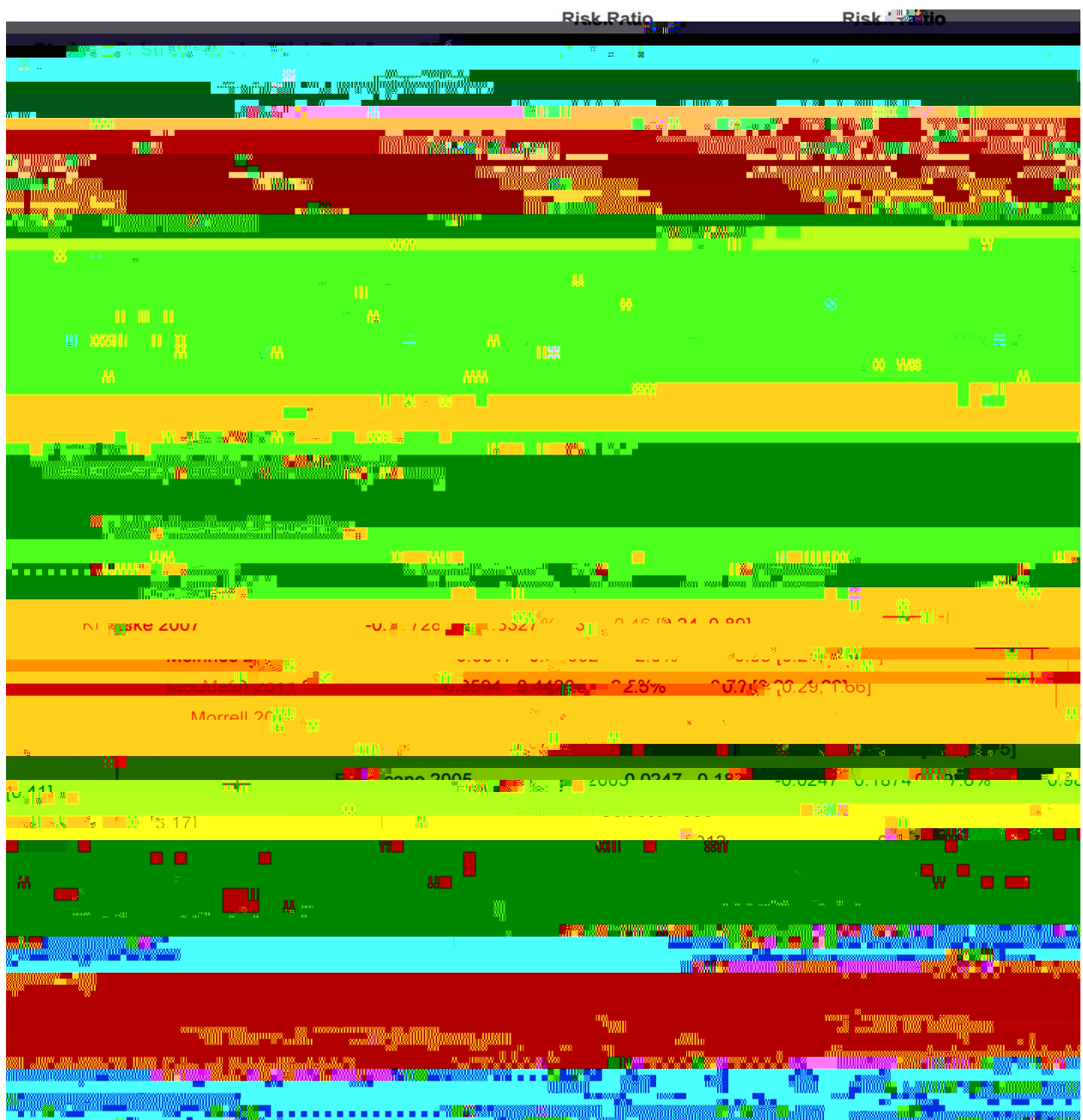


Figure 4 Effect of breast feeding education on the rate of partial breast feeding for 1 to 5 months

group, counseling a non-significant. Only facilities based in the region led a significant reduction of 52% (RR: 0.48, 95% CI: 0.34-0.69); the effect of community-based and combined facilities and community-based in the region were non-significant. In the region in both developing and developed countries had significant effect, reduced risk of 42% (RR: 0.58, 95% CI: 0.44-0.78) and 27% (RR: 0.73, 95% CI: 0.57-0.95), respectively. At <1 month, both analyses of effect counseling showed had combined individual and group counseling

led in a 34% decrease (RR: 0.66, 95% CI: 0.51-0.87), individual counseling alone led in a 29% decrease (RR: 0.71, 95% CI: 0.61-0.84) and group counseling alone led a 29% decrease (RR: 0.71, 95% CI: 0.51-0.99). In the subgroup analysis of the effect of facilities-based in the region and combined facilities and community-based in the region were 32% (RR: 0.68, 95% CI: 0.56-0.83) and 33% (RR: 0.67, 95% CI: 0.54-0.83), respectively. The effect of community-based in the region were non-significant. Developing

Table 3 Summary of findings for effect of breastfeeding promotion interventions on 'no breastfeeding' rates.

Study ID	Study Design	Study Population	Intervention	Comparison	Outcome	Effect Size	95% CI	Quality	Notes
38	21 RCT, 17 QE	[11,13,14,17,33,36,37,44,49,59,63,64,68-71,74,78,79,89-91,96,100,103,107,108,110,111,113,117,120-122,124-127]	Variable followed in period, die. Recall criteria variable across die (pa 24 hr, pa eek or pre io mon h).	Mo die, gge benefi. Significan he erogenei	10 of 38 die ere cond, c ed in de eloping co, n rie	Pooled re, l for differen pe of in er en ion	48026 39843 0.68 [0.54, 0.87]	Random effec me a-anal i d, e o ignifican he erogenei Mo die, ed indi id, al co, n eling and mo ere facili and comm, ni - ba ed. Effec of benefi refer o decrea e in n, mber no brea feeding.	
33	21 RCT, 12 QE	[10,18,19,38,45,52,53,61,63,66,68,71-74,76,88,90,91,93,95,98,99,101-103,106,113,117,118,120,124,128]	Variable followed in period, die. Recall criteria variable across die (pa 24 hr, pa eek or pre io mon h).	10 of 33 die, gge benefi. Significan he erogenei	4 of 33 die ere cond, c ed in de eloping co, n rie	Pooled re, l for differen pe of in er en ion	770 1018 0.70 [0.62, 0.80]	Random effec me a-anal i d, e o ignifican he erogenei Mo die, ed indi id, al co, n eling.	
73	41 RCT, 32 QE	[10,12,13,17-20,35,36,38,40-42,44,45,47,49,51,52,54,58,59,61-64,67-69,71-74,76,78-83,86,90-93,95-99,101,103-106,108-110,112-121,123,124,126,129,130]	Variable followed in period, die. Recall criteria variable across die (pa 24 hr, pa eek or pre io mon h).	25 of 73 die, gge benefi. Significan he erogenei	16 of 73 die ere cond, c ed in de eloping co, n rie	Pooled re, l for differen pe of in er en ion	15473 17578 0.82 [0.77, 0.89]	Random effec me a-anal i d, e o ignifican he erogenei Mo die, ed indi id, al co, n eling.	

conducted a meta-analysis of 49% (RR: 0.51, 95% CI: 0.29-0.90) and in the individual studies the meta-analysis of 29% (RR: 0.71, 95% CI: 0.62-0.81).

For the 1-5 months age group, the meta-analysis showed a statistically significant reduction in 'no breast feeding' rate

for combined individual and group analysis in the meta-analysis of 32% (RR: 0.68, 95% CI: 0.50-0.92), individual study ID: n634001



blinding and/or all cause concealment. A meta-analysis of  
menstrual cycle-related studies included, most of which did not  
employ blinding, highlighted the limitations of the evidence.  
Non-blinded epidemiological studies generally have a higher  
risk of bias than do randomized clinical trials. The meta-analysis  
also observed a higher risk of bias in studies with a higher  
and higher risk of bias in the meta-analysis, age-related bias  
(difference in income and education), and some definitions  
in 'full'









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