Implementation of the Ten Steps to Successful Breastfeeding programme in DR Congo

Implementation of a programme called the Ten Steps to Successful Breastfeeding, the key component of the UNICEF/WHO Baby-Friendly Hospital Initiative (BFHI) increases exclusive breastfeeding at 3 months, any breastfeeding at 12 months, and reduces diarrhoeal disease. These outcomes were shown in a cluster-randomised study of 31 hospitals and clinics (17 046 mother–infant pairs) in Belarus, in which BFHI was compared with standard care.[1] The study by Marcel Yotebieng and colleagues[2] published in *The Lancet Global Health* challenges the need for additional support during well-child visits and locally available breastfeeding support materials, and shows that formal accreditation might not be necessary to implement BFHI successfully (and is not readily achievable in many parts of the world). Yotebieng and colleagues assessed a short-cut implementation of the ten steps in a cluster randomised trial of six health-care clinics (957 eligible mother–infant pairs) in DR Congo. They randomly assigned clinics to BFHI steps 1–9 alone (steps 1–9 group), BFHI steps 1–9 plus additional support during well-child visits (steps 1–10 group), or standard care (control). BFHI steps 1–9 focus on the promotion and establishment of breastfeeding within the clinical setting of the birth. Step 10 promotes the establishment of breastfeeding support groups and referral of mothers to these on discharge from hospital or the clinic.

BFHI training consisted of two intensive (8 h per day) courses with practice sessions. For steps 1–10, staff from well-child clinics and maternity staff were trained using BFHI material, and educational flyers were distributed at discharge and at well-child visits. The content of the educational flyers is unclear except that the advice was about factors that are thought to contribute locally to suboptimum breastfeeding, especially giving water.

The primary outcomes in Yotebieng and colleagues' study[2] were initiation of breastfeeding (within 1 h of birth) and exclusive breastfeeding. Results for initiation of breastfeeding did not differ between groups. Exclusive breastfeeding was higher in both intervention groups at 14 weeks but, surprisingly, was only significantly higher in the steps 1–9 group at 6 months (36 [12%] of 304 in the control group, 131 [36%] of 363 in the steps 1–9 group [adjusted prevalence ratio 3·50, 95% CI 2·76–4·43], and 43 [14%] of 308 in the steps 1–10 group [1·31, 0·91–1·89]). The secondary outcome of diarrhoeal disease was lower only in the steps 1–9 group (prevalence: control group, 37 [18%] of 201 infants; steps 1–9 group, 24 [11%] of 220; steps 1–10 group, 39 [21%] of 188).

Why additional support was ineffective and probably negative for breastfeeding outcomes is unclear. One reason might be because the trial required all mothers to attend clinics six times in 6 months—no information is given on the distance and extra hardship involved for clinic attendance. Additionally, mothers in the the steps 1–10 group might perceive some feedback as negative and depressing, thus creating additional anxiety and stress associated with lactation. Advice delivered by peers in the home environment might be more adaptable and effective in promoting exclusive breastfeeding.[3] BFHI steps of proven benefit in the maternity ward might no longer be the most appropriate advice months later in the cultural context of the family. Advice that can be perceived as conflicting or contradictory, information overload, and disparities between expectations of the mother and health professionals, could all render support ineffective.[4] The issues that affect the success of lactation months post partum, and the barriers to lactation, could be different.

The study suggests the possibility that combined interventions such as those in the clinic and in the community have an antagonistic effect. The small sample size might also have contributed to the contradictory findings. The study also underlines the question of what is the best advice for new mothers with regard to breastfeeding, and who is the best person to deliver it after discharge from a maternity ward or clinic. The findings also lead to the question of whether the advice is best directed only at the mother, or whether supporting people from the family or community should be engaged in the discussion.[5,6]

The study also has implications for mothers in developed countries. The increase in exclusive breast-feeding as a result of implementing BFHI steps 1–9 at birth compared with implementing steps 1–9 plus additional support later suggests that there might be

Published Online
August 3, 2015
http://dx.doi.org/10.1016/S2214-109X(15)00005-4

See Articles page e546

For more on the **Ten Steps breastfeeding programme** see http://www.unicef.org/programme/breastfeeding/baby.htm

an essential learning period for breastfeeding at the initiation of lactation and that this might be lost during established lactation. Subtle interventions around birth and the immediate postnatal period could suppress this learning period and significantly decrease the proportion of mothers continuing to exclusively breastfeed their babies. The study also raises the question of whether additional support during well-child visits and locally available breastfeeding support materials are necessary or whether they could be more effectively provided.

Exclusive breastfeeding until 6 months is an important strategy to reduce mortality in children younger than 5 years (Millennium Development Goal 4), and is particularly important in countries such as DR Congo where child mortality is high and the cycle of diarrhoeal disease and malnutrition is common. The prevalence of breastfeeding is high in DR Congo, but infants often receive supplemental water feeds from unclean water supplies.

Reviews of the effect of education interventions with health professionals and breastfeeding counsellors about the optimum duration of breastfeeding have been inconclusive.[7] Future research needs to be focused on what support is effective in the community, with the aim of increasing exclusive breastfeeding from the proportions achieved with steps 1–9 BFHI.

**Karen Simmer, Sanjay Patole*

Centre of Neonatal Research and Education, University of Western Australia, Crawley, Perth, WA 6009, Australia (KS, SP)
karen.simmer@health.wa.gov.au

We declare no competing interests.

Copyright © Simmer et al. Open Access article published under the terms of CC BY-NC-ND.

1 Kramer MS, Chalmers B, Hodnett ED, et al. Promotion of breastfeeding intervention trial (PROBIT): a randomised trial in the Republic of Belarus. *JAMA* 2001; **285:** 413–20.
2 Yotebieng M, Labbok M, Soeters HM, et al. Ten Steps to Successful Breastfeeding programme to promote early initiation and exclusive breastfeeding in DR Congo: a cluster-randomised controlled trial. *Lancet Glob Health* 2015; published online Aug 3. http://dx.doi.org/10.1016/S2214-109X(15)00012-1.
3 Nankunda J, Tumwine JK, Nankabirwa V, Tylleskar T, PROMISE_EBF Study Group. "She would sit with me": mothers' experiences of individual peer support for exclusive breastfeeding in Uganda. *Int Breastfeed J* 2010; **5:** 16.
4 Hauck YL, Grahan-Smith C, McInerney J, Kay S. Western Australian women's perceptions of conflicting advice around breastfeeding. *Midwifery* 2011; **27:** e156–62.
5 Hoddinott P, Craig LC, Britten J, McInnes RM. A serial qualitative interview study of infant feeding experiences: idealism meets realism. *BMJ Open* 2012; **2:** e000504.
6 Thomas G, Bilson A, Dykes F. Implementing the WHO/UNICEF Baby Friendly Initiative in the community: a 'hearts and mind approach'. *Midwifery* 2012; **28:** 258–64.
7 Spoby H, McCormick F, Wallace L, Renfrew MJ, D'Souza L, Dyson L. A systematic review of education and evidence-based practice interventions with health professionals and breastfeeding counsellors on duration of breastfeeding. *Midwifery* 2009; **25:** 50–61.