Workshop to implement the baby-friendly office initiative

Effect on community physicians’ offices

Fahrin Shariff, MD, CCFP Cheryl Levitt, MB BCH, CCFP, FCFP Janusz Kaczorowski, PhD
Jacqui Wakefield, MD, CCFP, FCFP Hiltrude Dawson, RN Debbie Sheehan, BSCN, MSW
John Sellors, MD, CCFP, FCFP

abstract

OBJECTIVE To assess the effect of a self-appraisal questionnaire and a workshop for office staff in promoting the baby-friendly office (BFO).

DESIGN A times-three factorial design with a delayed workshop for one of the two groups: an early intervention group who attended a workshop for office staff in October 1997 (n = 23) and a late-intervention group who attended in April 1998 (n = 23). Self-appraisals were completed before the workshops by all participants in October 1997, by 37 offices in April 1998, and by 34 offices in October 1998.

SETTING Offices of family physicians and primary care pediatricians in Hamilton-Wentworth, Ont.

PARTICIPANTS Staff of 46 offices; 74% (34/46) completed all three assessments.

MAIN OUTCOME MEASURES Degree of change in implementing each of the “10 Steps to Baby-Friendly Office” and overall average BFO score received by each office.

RESULTS Of the 34 offices completing all assessments, none followed all 10 steps. Initial mean score was 4.4 steps (standard deviation 1.4, n = 46). The workshop intervention improved overall mean scores from 4.3 to 5.6 (P < .001, n = 37). Although office staff completed the BFO self-appraisal tool, it alone had no effect on scores. Areas of improvement were noted in providing information to patients and displaying posters to promote breastfeeding. Key steps, such as not advertising breast milk substitutes and not distributing free formula, did not change.

CONCLUSION The workshop effected a modest but positive change in breastfeeding promotion. The change was maintained at 6 and 12 months after the intervention.

résumé

OBJECTIF Évaluer les répercussions d’un questionnaire d’auto-évaluation et d’un atelier à l’intention du personnel de cabinets médicaux sur la promotion de bureaux amis des bébés.


Nous avons évalué les répercussions à long terme de l’atelier. Les résultats montrent une amélioration modérée mais positive de la promotion de l’allaitement maternel. Cette amélioration a été maintenue à 6 et 12 mois après l’intervention.
Breastfeeding has important health benefits for infants and children.\textsuperscript{1-4} Some routine health care practices have been shown to have a negative effect on both initiation and maintenance of breastfeeding.\textsuperscript{5-10}

In 1991, the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) jointly launched the Baby-Friendly Hospital Initiative (BFHI), which targeted hospitals providing maternity care.\textsuperscript{11} The BFHI is a structured method for protecting, promoting, and supporting breastfeeding and involves, among other requirements, implementation of the International Code of Marketing of Breast-milk Substitutes\textsuperscript{12} and the 10 Steps to Successful Breastfeeding.\textsuperscript{13}

Several of the “10 Steps to Successful Breastfeeding” have been formally tested in randomized controlled trials that have shown that barriers to successful breastfeeding include delayed first feeding, separation of infant and mother, provision of supplements in hospital, and gifts of formula at discharge.\textsuperscript{14} The BFHI, following a structured process of self-appraisal and external review, formally accredits hospitals that implement policies conducive to breastfeeding by minimizing or eliminating such barriers. Increasing the number of baby-friendly hospitals is intended to increase rates of initiation and maintenance of breastfeeding globally by maximizing education and support for new mothers.

In 1994, the World Health Assembly passed resolution no. 49,\textsuperscript{15} ratified by Canada in the same year, stating that marketing substitute products through physicians’ offices, community health clinics, and prenatal classes undermines breastfeeding and violates the International Code of Marketing of Breast-milk Substitutes.

A mother’s decision to breastfeed is likely affected by many factors, such as community norms and values.\textsuperscript{16,17} Also, because women stay in hospital only a short time after giving birth, community-based health professionals providing maternity care are likely to become increasingly important in promoting and maintaining breastfeeding. Efforts to ensure an environment where breastfeeding is the norm must extend beyond hospitals and into the community. In Canada, the BFHI has been expanded to the “Baby-Friendly Initiative” to reflect this extension into the community, physicians’ offices, pharmacies, workplaces, restaurants, and other areas where babies need to be fed.

In 1997, the College of Family Physicians of Canada (CFPC) published “10 Steps to a baby-friendly office,”\textsuperscript{18} developed by the CFPC Task Force on Child Health (Table 1). The 10 steps are derived from the WHO/UNICEF 10 Steps to Successful Breastfeeding, which was also the basis for the self-appraisal tool for hospitals. The 10 steps to a BFO aim to provide community-based practitioners with general principles on which they can make their offices conducive to protection, promotion, and support of breastfeeding.

A study of infant feeding resources in the offices of physicians in Hamilton-Wentworth\textsuperscript{19,20} showed little adherence to the International Code of Marketing of Breast-Milk Substitutes: 80% of offices accepted free formula samples, 50% gave free formula or gift packs.

### Table 1. 10 Steps to a baby-friendly office

1. Support, promote, and protect breastfeeding by informing women so that they can make an informed decision about breastfeeding.

2. Establish a baby-friendly office policy in collaboration with your colleagues and office staff, and inform all new staff of this policy.

3. Eliminate the practice of distributing free formula to women from your office.

4. Ensure that your patient education material and magazines do not advertise breast-milk substitutes, bottles, or nipples.

5. Display baby-friendly posters that promote breastfeeding.

6. Provide a relatively private area in your office where babies can be breastfed.

7. Do not refer pregnant women to formula company-run prenatal or postnatal classes.

8. Eliminate the practice of accepting free samples of breast-milk substitutes or related materials by your office staff.

9. Advocate to ensure that your hospital is a “baby-friendly hospital.”

10. Support continued breastfeeding among mothers who return to workplaces outside their homes by advocating for baby-friendly workplaces. Ensure that your office is a baby-friendly workplace for your own staff.

---

Dr Shariff was a resident and Drs Levitt, Kaczorowski, Wakefield, and Sellers are faculty in the Department of Family Medicine at McMaster University in Hamilton, Ont. Ms Dawson serves on the Hamilton-Wentworth Regional Lactation Committee. Ms Sheehan is with the Hamilton-Wentworth Social and Public Health Services Division.

Reprinted from Levitt et al.\textsuperscript{18}
containing free formula to mothers, and 90% offered pamphlets promoting use of formula.

This paper describes a study designed to evaluate two interventions to improve BFO practices in family physicians’ and pediatricians’ offices in Hamilton-Wentworth, Ont: an office self-appraisal tool and a workshop for office staff.

**METHODS**

**Study design**

The effect of the self-appraisal tool and the workshop on promoting BFOs was tested in a two-times-three factorial design (Figure 1). The 46 participating offices were assigned to one of two groups: 23 to an early intervention workshop (October 1997) and 23 to a late intervention workshop (April 1998).

Although a randomized controlled trial was planned, the small number of offices willing to participate, requests from offices to attend at specific times, and the short time available for recruiting before the first workshop made randomization impossible. Two separate times were chosen for the workshop to facilitate assessing the effect of the self-appraisal tool alone; assessing the additional effect of the workshop; and controlling for potential confounding factors.

All offices were asked to complete the BFO self-appraisal questionnaire at baseline (October 1997), at 6 months, and at 12 months to allow us to track changes in office practices. Fax reminders and phone calls were used to prompt timely return of follow-up appraisals. The protocol was approved by the ethics committee of the Faculty of Health Sciences at McMaster University in Hamilton, Ont.

**Setting**

The Hamilton-Wentworth area has approximately 200 family medicine offices and 25 pediatricians’ offices. The true number of offices is not known since offices as a unit are not registered. Invitations to a workshop on the BFO were sent to all family physicians and pediatricians in the region; names were identified from a list in McMaster University’s Department of Family Medicine. Physicians were urged to support National Breastfeeding Week by encouraging their office staff to participate in the workshop.

Participants were primarily receptionists, secretaries, clinic administrators, nurses, and, rarely, physicians. One to three participants came from each office. Consent for participating in the study was obtained at registration for the workshop. The first workshop was held during National Breastfeeding Week in October 1997 and the second workshop 6 months later.

**Sample size estimation**

Calculations were based on the study’s primary outcome. To make our intervention worthwhile, one standard deviation or more in the average number of steps followed was arbitrarily chosen as the clinically relevant number. Assuming a two-tailed $\alpha$ of .05 and $\beta$ of .2, a sample of 40 practices was required. A 15% drop-out rate was anticipated, suggesting we needed to recruit at least 46 offices.

**Intervention**

The workshop was a 1-hour luncheon meeting. The agenda included discussion of current rates of breastfeeding in Hamilton-Wentworth, an overview of the WHO/UNICEF BFHI, and a review of the “10 Steps to a baby-friendly office.” On display were locally available materials (eg, breast pumps, breast shields) and other resources (eg, lactation consultants, specialty bookstore).

Participants were encouraged to discuss issues raised during workshops with the physicians in their offices to further effect change. Participants were given packages containing a description of the International Code of Marketing of Breast-milk Substitutes, a draft sample breastfeeding policy for offices, a copy of breastfeeding support telephone numbers, copies of patient information pamphlets produced by Health Canada and the Hamilton-Wentworth Regional Lactation Committee, the “10 Steps to a baby-friendly office,” and Health Canada posters promoting breastfeeding.

**Outcomes**

Because there was no existing instrument, a BFO self-appraisal tool for community offices providing care to maternity patients and newborns was developed, pilot-tested, and validated. It was a modified version of the WHO/UNICEF BFHI self-appraisal tool that was developed with input from local key informants, including the Hamilton-Wentworth Maternal Child Health Interdisciplinary Theme Group and public health officials involved in providing prenatal education.

The self-appraisal tool guided office staff in evaluating each of the 10 steps to a BFO and helped them make an initial appraisal of their practices regarding infant feeding. Nineteen closed-ended questions addressed each of the 10 steps. While the questionnaire had good face validity, it was also pilot-tested on a
convenience sample of five offices in the city of Burlington, Ont, a community near our study area.

In each office, two staff members were asked to complete the appraisal to test for interobserver reliability. Following this, an external appraiser, a registered lactation consultant, evaluated each office to test for validity. Participants were then asked whether the questions were clear, and the BFO self-appraisal tool was modified accordingly. The tool was used as a minimal intervention with the hope that it would prompt physicians and their support staff to examine and perhaps modify office practices that might be barriers to successful breastfeeding. The main outcome measures of this study were degree of change in terms of implementing each of the 10 steps and overall average score. Copies of the BFO self-appraisal tool are available from the authors.

**Statistical analysis**

Data analysis was carried out using SPSS software version 4.0 for Macintosh. Data were collected on standard study forms, and all information was kept confidential. Ten variables representing each of the 10 steps were created to assign a score out of 10 to each office at each of the three assessments. Differences in practice characteristics between the two study groups were analyzed using $\chi^2$ for categorical variables and analysis of variance (ANOVA) for continuous measures. Differences within groups on individual steps were assessed using the McNemar test.

To assess the effectiveness of the workshop, two times-two (and two-times-three) ANOVAs were performed to examine differences between groups (immediate vs delayed workshop) over the two (and three) assessment periods, treated as a repeated
RESEARCH
Workshop to implement the baby-friendly office initiative

We recruited 46 community-based offices: 42 family physician and 4 pediatrician offices. Of these, 41 offices provided care to pregnant patients and 22 provided full obstetric care. All 46 participating offices completed a baseline BFO self-appraisal tool in October 1997; 12 offices (26%) failed to complete all three assessments. Reasons for drop-out included difficulties in making time or arrangements to attend the workshop (five offices), declining to complete the study (three offices), change in office staff (two offices), change in physician (one office), and personal crisis (one office).

At baseline, there was no statistically significant difference between early- and late-intervention groups in terms of BFO practices. Average number of steps followed by the 46 offices was 4.4 (standard deviation [SD] 1.4, range 1 to 9). No office followed all 10 steps. Steps most likely to be implemented were those supporting breastfeeding in the workplace (89% 39/44): referral to prenatal and postnatal classes not run by companies marketing formula (87% 34/39), not distributing free formula to office staff (87% 39/45), and providing information on the benefits of breastfeeding to pregnant women (78% 35/45). Offices that provided full obstetric care and that reported high rates of breastfeeding initiation (>70% tended to have a higher number of BFO steps implemented (4.8 vs 3.9, \( P < .05 \), and 4.7 vs 3.8, \( P < .05 \), respectively).

At the first follow-up assessment in April 1998, 37 offices had completed both assessments (21 from the early intervention group and 16 from the late intervention group). Average score was 5.2 (SD 1.4, range 3 to 8), a significant increase from the baseline average of 4.4 (\( F_{1,35}^{} = 10.5, P = .003 \)), regardless of group assignment. Follow-up tests revealed, however, that this difference was entirely attributable to the higher scores in the early intervention group. This was further confirmed by a statistically significant interaction effect of groups with time (\( F_{1,35}^{} = 16.3, P < .001 \)), indicating that practices allocated to early intervention had significantly higher scores at follow up than at baseline (5.9 vs 4.4) (\( F_{1,35}^{} = 21.2, P < .001 \)) and that practices allocated to late intervention remained virtually unchanged (4.4 vs 4.6) (\( F_{1,35}^{} = 0.68, P = .423 \)).

Steps that had contributed to a significant increase in mean scores after the workshop were a 39% increase in display of baby-friendly posters (\( P < .01, \) McNemar test) and a 9% increase in provision of specific information on the benefits of breastfeeding to pregnant women (\( P = .06, \) McNemar test).

At the final assessment in October 1998, 34 offices had completed all three assessments (18 from the early intervention group, 16 from the late intervention group). Again, none followed all 10 steps. Overall, final average score for these 34 offices was 5.1 (SD 1.8, range 0 to 8), similar to the mean in April and higher than the baseline average of 4.4. These differences corresponded to an overall statistically significant effect of time across both study groups (\( F_{2,22}^{} = 5.70, P = .005 \)).

There was a statistically significant interaction effect of groups with time (\( F_{2,22}^{} = 7.01, P = .002 \)) suggesting that changes in mean score were not uniform across the two study groups. Post-hoc comparisons using the Scheffé test (multiple comparisons procedure) indicated that the early-intervention group had a final mean score of 5.1, which was not significantly different from the 6-month follow-up mean score of 5.8, but was significantly higher (\( P < .05 \)) than the baseline score of 4.2. The late-intervention group had a final mean score of 5.2, which suggested a trend toward improvement, but was not significantly different from the score before the workshop (4.4) or at baseline (4.6) (\( F_{2,22}^{} = 3.15, P = .057 \)). Figure 2 shows the mean number of BFO steps implemented by each group at the three assessments.

To increase statistical power, and because of the lack of significant differences attributable to the BFO self-appraisal tool alone, early- and late-intervention groups were collapsed to pre- and post-workshop groups. In the 37 offices that completed assessments before and after the workshop, the average number of steps implemented increased from 4.3 to 5.6 (\( F_{1,36}^{} = 22.02, P < .001 \)).

DISCUSSION

This was the first study specifically designed to evaluate the effect of two different interventions to improve policies and practices regarding breastfeeding in...
community-based family physicians’ and pediatricians’ offices. No offices in our study complied with all 10 steps to a BFO and, therefore, none qualified as a BFO. At baseline, an average of four steps had been implemented in most offices.

The BFO self-appraisal tool alone had no significant effect on increasing BFO practices. The workshop improved promoting breastfeeding by increasing provision of information to mothers and display of posters promoting breastfeeding. On average, the workshop resulted in an increase of 1.3 steps overall. Changes attributed to the workshop appeared to be maintained at 6 and 12 months.

**Limitations**

The trial was not randomized. At baseline, mean number of steps implemented by early- and late-intervention groups was similar; but the early-intervention group might have made changes after the workshop because they were more motivated to participate and had an established interest in breastfeeding promotion.

Second, there was a higher than anticipated dropout rate (26%) that resulted in loss of statistical power. Third, the target audience for the workshops was office staff and not physicians. Our original rationale for targeting office staff was to maximize workshop attendance and reduce attrition. We were concerned that, if we targeted physicians directly, we would have more difficulty enrolling enough participants and our dropout rate would be higher. We thought that asking physicians to encourage their staff to complete the BFO self-appraisal tool and attend the workshop would effect policy change in the office.

Last, although the self-appraisal tool was initially validated by an external appraiser, it is still at best a self-reported measure of office practices. Office staff might not report behaviour known to be detrimental to breastfeeding protection, promotion, and support.

The changes noted in this study, though significant, were very modest improvements over the status quo and were likely achieved by provision of pamphlets and posters promoting breastfeeding. Key steps, such as not supplying free formula to mothers and ensuring that patient education materials are free from breast-milk substitute advertising, were implemented by fewer practices.

While some of the 10 steps might be beyond an office’s immediate control, it is imperative to provide community-based practitioners with general principles
The workshop effected a modest but positive change in breastfeeding promotion that was maintained at 6 and 12 months after the intervention. Further efforts at improving BFO practices are warranted.

Acknowledgment
This work was supported by a grant from Physicians’ Services Incorporated Foundation.

Correspondence to: Dr Cheryl Levitt, Professor and Chair, Department of Family Medicine, Faculty of Health Sciences, McMaster University, 1200 Main St W, Hamilton, ON L8N 3Z5; telephone (905) 521-2100, extension 76195; fax (905) 521-5594; e-mail clevitt@fhs.McMaster.ca.

References
13. World Health Organization. Protecting, promoting and supporting breastfeeding: the special role of maternity services. A


...