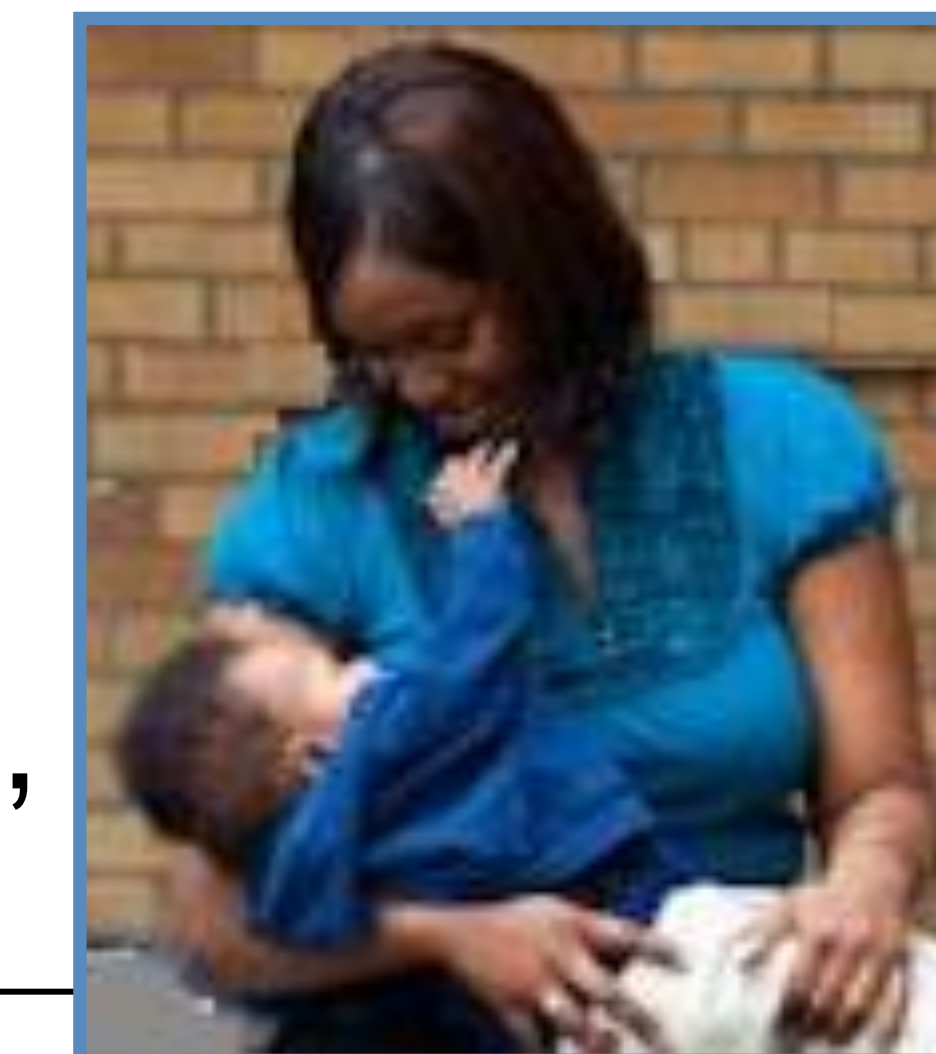




Can Childcare Workers Impact Breastfeeding Practice?

An operational research study

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BACKGROUND AND METHODS

Background: Due to lack of paid maternity leave, most women in the US re-enter the workforce within weeks to months postpartum. Many women incorrectly assume that breastfeeding must stop when they work and their infant enters childcare. When child care centers provide support and encouragement for breastfeeding families, it can make it easier for mothers to continue breastfeeding, thus continuing to provide the optimal nurturing and nutrition for babies.

Purpose: To study this issue, we are working with the Child Care Health Consultants in Wake County, NC, to assess and address gaps in knowledge, attitudes and practices (KAP) related to feeding, and develop interventions based on these findings to improve breastfeeding support in child care centers, especially those that serve low wealth populations.

Methods:
Study Design: This study uses multiple methods to identify gaps in KAP to be addressed to improve breastfeeding support in the daycare setting. A phased operational research design is employed, with an observation phase (O) followed by systematic assignment of centers; centers were divided into groupings based on size, acceptance of vouchers and quality rating. These groupings were then randomly assigned, based on blinded coin toss, either to early (e) intervention and late (l) intervention, allowing an assessment of the impact of the (e) intervention. The (l) group receives the intervention thereafter, modified if necessary based on O₂ findings. O₃ is final data collection.

O₁ X_e O₂ X_e O₃
O₁ O₂ X_l O₃

Observation Phase (O)

- Surveys: 1) Childcare workers completed an IRB-approved KAP questionnaire, and 2) the directors of the centers completed a self-assessment instrument.
- Key Informant Interviews of WIC peer counselors
- Intervention Phase (X):** The intervention includes:
 - Feedback to key stakeholders on findings from initial surveys, self-assessments, and key informant interviews.
 - Materials/posters for parents and staff.
 - Breastfeeding-supportive training session for child care providers, with follow-up.

KAP SURVEY FINDINGS N=460

Selected questions. Missing data are not shown.
Likert scales condensed for presentation.
Green indicates the preferred answer;
Red indicates need for support/change/information

(True/ False)

Babies who get their mother's milk most of the time are less likely to get ear infections and diarrhea than babies who get formula most of the time.

True: 68.5% False: 28.5%

Frozen mother's milk can be thawed in the refrigerator and kept there for the rest of the day.

True: 82.8% False: 14.1%

A good way to give babies cereal is to put it in their bottles.

True: 27.2% False: 70.4%

Breastfeeding is good for the mother's health.

True: 86.1% False: 11.1%

Infant feeding bottles can be heated in the microwave.

True: 8.7% False: 90.7%

It is necessary to wear gloves when handling and preparing bottles of formula at the child care center.

True: 50.9% False: 47.4%

It is necessary to wear gloves when handling and preparing bottles of mother's milk at the child care center.

True: 83.7% False: 13.7%

Sometimes it is necessary to prop a baby's bottle.

True: 10.2% False: 87.4%

If a mother has a poor diet, she should not breastfeed.

True: 63.9% False: 33.7%

(Likert)

I feel uncomfortable handling human milk

Agree: 22.9% Disagree: 75.2%

I would feel embarrassed if I saw a mother breastfeeding her child in this child care center.

Agree: 12.8% Disagree: 85.9%

Supporting breastfeeding is an important part of my job.

Agree: 69.9% Disagree: 29.9%

What I do in this job influences how long mothers breastfeed.

Agree: 34.8% Disagree: 65.2%

If a mother needed breastfeeding support, I know where to refer her for community resources.

Agree: 62.4% Disagree: 34.2%

Breastfeeding is only as good as the mother's diet.

Agree: 67.8% Disagree: 29.6%

INTERVENTION MATERIALS

Materials were developed and pilot tested designed to address the expressed needs and the identified KAP gaps for childcare workers, families and other healthcare providers, to better inform families on the issues of feeding in daycare, and to support continuation of breastfeeding.

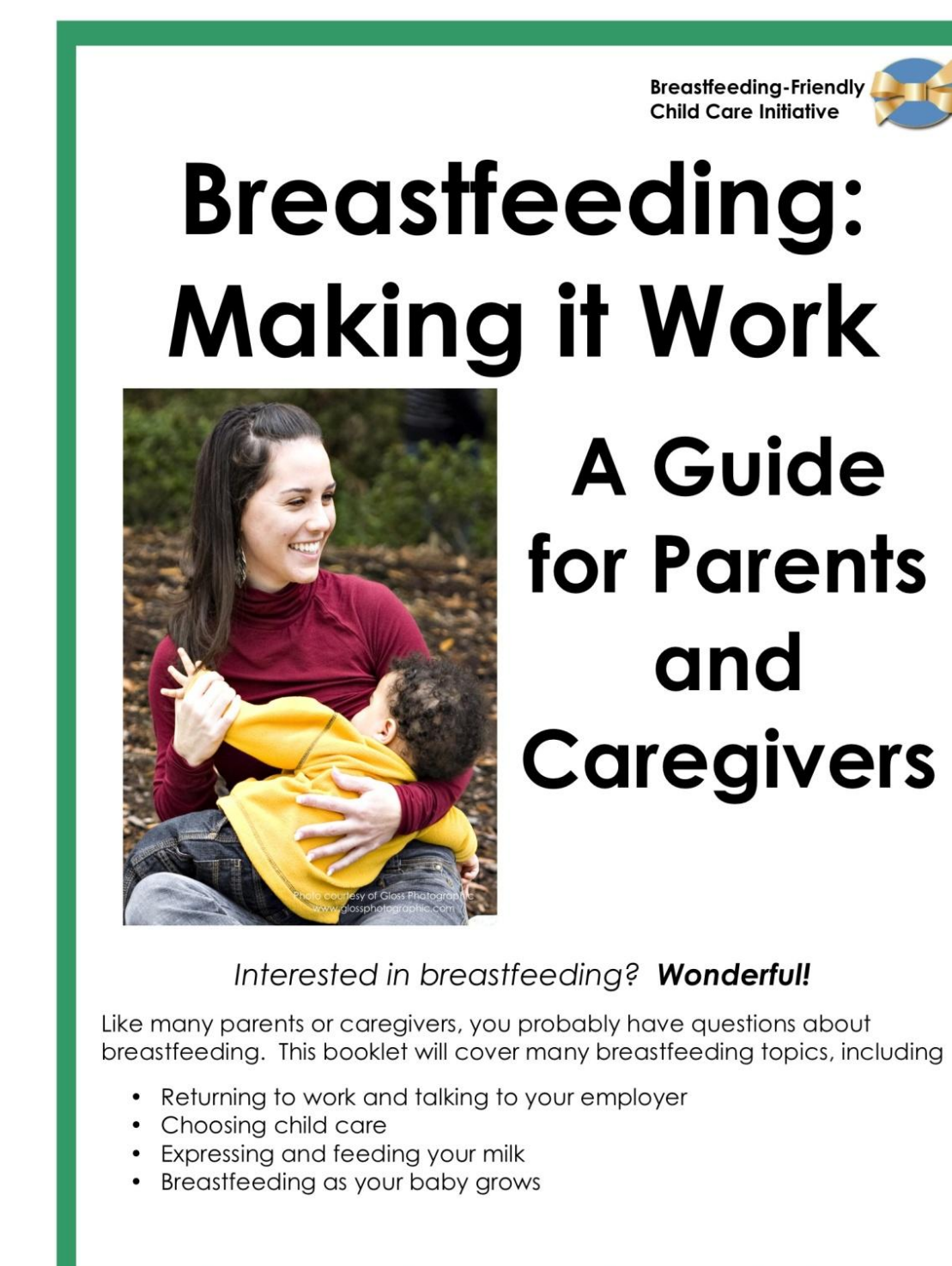
Guiding principles for materials development:

- Low literacy level
- Short and simple materials
- Diverse, population-appropriate photographs
- Easily printable from .pdf files, to be made available on the web as part of a "Breastfeeding-Friendly Child Care" toolkit
- Color-coded by purpose

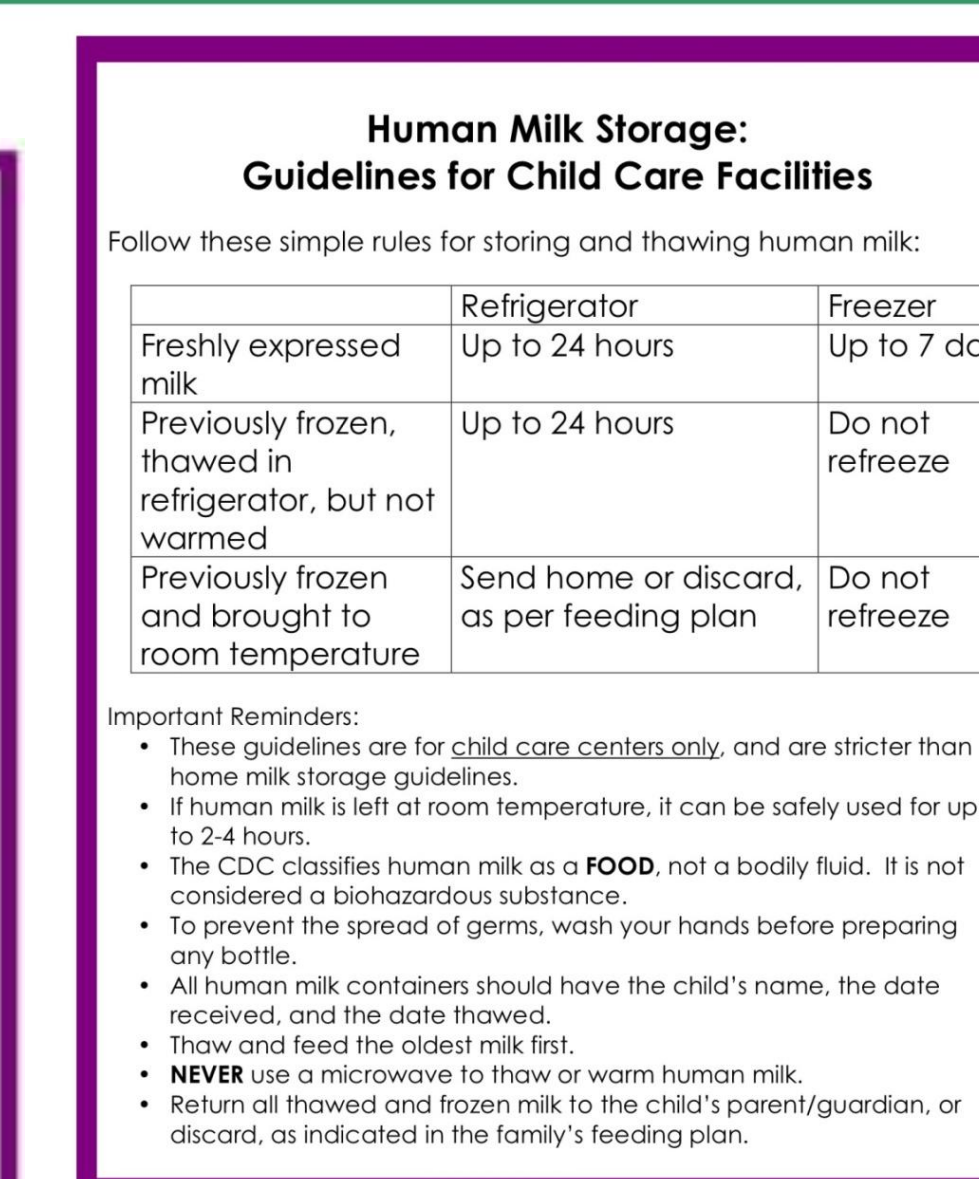
Materials for All



Materials for Breastfeeding Mothers/Families



Materials for Centers



TRAINING INTERVENTION

The preliminary findings presented herein revealed significant as well as minor gaps in breastfeeding KAP. A curriculum was developed for providers, concentrating on self-efficacy, attitudes and standards of practice. Immediate impact of training presented below:

| Pre and Post Training Question N = First 40 trainees | Pre Test (%) | Post Test (%) | Sig (p<.05) |
|--|---------------------------|---------------------------|-------------|
| You should always wear gloves when handling human milk | True: 76.9 False: 23.1 | True: 12.5 False: 87.5 | yes |
| Breastfeeding babies have fewer ear infections | True: 87.5 False: 12.5 | True: 100% False: 0 | yes |
| Babies who receive formula have more diarrhea than those who do not | True: 28.2 False: 71.8 | True: 92.5 False: 7.5 | yes |
| Supporting breastfeeding is part of my job | True: 85 False: 15 | True: 100 False: 0 | yes |
| If a child is not breastfed, she is more likely to die of SIDS | True: 20.5 False: 79.5 | True: 89.7 False: 10.3 | yes |
| Formula contains all of the components in human milk | True: 20.5 False: 70.5 | True: 95 False: 5 | yes |
| I can affect whether or not a mother continues breastfeeding her baby | True: 68.4 False: 31.6 | True: 89.7 False: 10.3 | yes |
| A good way to feed a baby cereal is in a bottle | True: 22.5 False: 77.5 | True: 100 False: 0 | yes |
| The longer a mother breastfeeds, the better it is for her health | True: 60 False: 40 | True: 95 False: 5 | yes |
| If a mother's diet is poor, she should not breastfeed | True: 62.5 False: 37.5 | True: 2.5 False: 97.5 | yes |
| It's best if babies receive only mother's milk until they are six months old | True: 76.9 False: 23.1 | True: 79.5 False: 20.5 | no |
| Microwaving is a good way to warm bottles | True: 5 False: 95 | True: 2.5 False: 97.5 | no |
| It's best for everyone if babies are fed on a schedule | True: 66.7 False: 33.3 | True: 10 False: 90 | yes |
| Human milk will spoil if left at room temperature for an hour | True: 57.9 False: 42.1 | True: 7.5 False: 92.5 | yes |
| You should always wear gloves when handling bottles of formula | True: 35 False: 65 | True: 10 False: 90 | yes |

OUTCOMES

The early and late interventions groups findings will be compared following O₂ data collection.

CONCLUSIONS

Despite national/state guidelines, many childcare workers have limited KAP re: breastfeeding. The interventions designed to address these gaps may increase the support needed for breastfeeding success after return to work.

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