Innovation in education: An on-line multi-disciplinary breastfeeding education program

Kathy Hamelin, RN, MN, IBCLC
Maggie Ford, BEd, MEd.
Objectives

At the completion of this presentation, participants will be able to:

- Describe the challenges associated with multi-disciplinary breastfeeding education
- Discuss the application of technology and on-line learning as a forum to address this educational need
- Encourage application of the on-line breastfeeding curriculum as an educational opportunity for communities of practice
“Healthy full term babies should receive only breast milk for the first 6 months of life with continued breastfeeding for 2 years and beyond”
## Maternity Experiences Survey 2006-2007 Canadian data

<table>
<thead>
<tr>
<th>BF outcomes</th>
<th>Canadian average</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF initiation</td>
<td>90% (75-97%)</td>
</tr>
<tr>
<td>BF (any) at 3 months</td>
<td>68%</td>
</tr>
<tr>
<td>BF (excl) at 3 months</td>
<td>52%</td>
</tr>
<tr>
<td>BF (any) at 6 months</td>
<td>54%</td>
</tr>
<tr>
<td>BF (excl) at 6 months</td>
<td>14%</td>
</tr>
</tbody>
</table>

The Baby Friendly Initiative

- Outlines “10 steps” to best practice
- Goal: to give every baby an optimal start in life by creating a health care environment that supports BF as the norm
- BFI certification in Canada:
  - 8 hospitals
  - 3 birthing centers
  - 13 community facilities
Outcomes of BFI…

- Infants born at BFI facilities are more likely:
  - to start breastfeeding
  - to breastfeed past 6 weeks
  - to be exclusively breastfed to 5 months of age
    - Broadfoot 2005
    - Merten et al 2005

- Challenges in implementing the “10 steps” are universal
The Integrated 10 Steps for Hospital and Community Settings

- Have a written breast-feeding policy that is routinely communicated to all health care staff and volunteers.

- Ensure all health care providers have the knowledge and skills necessary to implement the breastfeeding policy.

- Inform pregnant women and their families about the importance and process of breastfeeding.

- Place babies in uninterrupted skin-to-skin contact with their mothers immediately following birth for at least an hour or until completion of the first feeding or as long as the mother wishes; encourage mothers to recognize when their babies are ready to feed, offering help as needed.

- Assist mothers to breastfeed and maintain lactation should they face challenges including separation from their infants.

- Support mothers to exclusively breastfeed for the first 6 months, unless supplements are medically indicated.

- Facilitate 24 hour rooming-in for all mother-infant dyads; mothers and infants remain together.

- Encourage baby-led or cue-based breastfeeding. Encourage sustained breastfeeding beyond six months with appropriate introduction of complementary foods.

- Support mothers to feed and care for their breastfeeding babies without the use of artificial teats or pacifiers (dummies or soothers).

- Provide a seamless transition between the services provided by the hospital, community health services and peer support programs. Apply principles of Primary Health Care and Population Health to support the continuum of care and implement strategies that affect the broad determinants that will improve breastfeeding outcomes.

The Code: Compliance with the International Code of Marketing of Breastmilk Substitutes.
Professional obligation for “evidence-informed” breastfeeding care:

- “Given the state of the science related to the benefits of breastfeeding, care providers have an ethical responsibility to promote and encourage breastfeeding.”
  - Miracle and Fredland 2007

- Responsibility shared among health care team
What do care providers need to know?

- To encourage BF, providers must have knowledge of:
  - Benefits of BF and *risks of not BF*
  - A&P of both mother and baby
  - BFI and best practices related to initiation and duration
  - The “Code” and its implications for office or institutional environments
  - How to manage common BF problems if they arise
  - Resources for additional assistance when required

- Level of knowledge depends on role
Challenge: Multidisciplinary education

- Level of BF education and knowledge varies among care providers
  - Nursing curriculum related to BF varies
    - Staff orientation is an expectation
  - Social work, OT/PT
    - Limited access to BF education
  - Dietitians
    - Infant nutrition key component of education program
  - Medical school
    - Curriculum does not prepare care providers for their role in BF promotion
Do physicians receive BF education?

- Literature related to this topic since 1990’s
- Reports of physician / resident surveys to determine BF knowledge and confidence in clinical care
- Data indicate:
  - Majority rate BF training as inadequate
  - >50% report uninformed BF counseling and management of BF issues
  - Personal BF experience was a significant predictor of BF knowledge and confidence
    - Freed, Clark et al 1995
    - Guide & Freed, 2000
    - Mitra et al 2003
Does structured BF education make a difference in physician practice?

- Since early 2000, literature reporting the effect of BF education on knowledge and practice
- Educational formats included lecture, interactive multimedia curricula, resource packages and internet-based programs
- Efficacy evaluated through pre and post intervention questionnaires, observation of physician practice, surveys of mothers, and BF rates
  - Hillebrand & Larsen, 2002
  - Burt, Whitmore, Vearncombe & Dykes, 2006
  - Feldman-Winter et al, 2010
  - O’Connor, Brown & Lewin, 2010
Does structured BF education make a difference in physician practice?

- Data indicate that physician training significantly improves BF knowledge
- Incorporated into informed evidence-based clinical practice and physician confidence
- Infants born at sites with educated physicians more likely to be exclusively BF at 6 months
  - Hillebrand & Larsen, 2002
  - Burt, Whitmore, Vearncombe & Dykes, 2006
  - Feldman-Winter et al, 2010
  - O’Connor, Brown & Lewin, 2010
Does physician education make a difference in BF outcomes?

- Literature indicates that care provider knowledge, attitude and promotion is an important factor in BF initiation and duration

- Provider encouragement exerts a positive independent influence on BF initiation
  - Lu et al (2001)

- Evidenced-based care for BF problems and encouragement from care provider supports BF duration
  - Taveras et al, 2003; 2004
Challenge: delivery of high quality BF training for multidisciplinary team

- Challenges included:
  - Development of BF educational curriculum that:
    - Includes “need to know” BF information
    - Meets learning needs of health care team
Adult learning theories

- Malcolm Knowles educational theorist, famous for developing theory on “adult learners”.
- Developed a set of assumptions for adult learners to guide effective practice and enhance our teaching.
Principles of adult learning

Adult learners are motivated by intrinsic factors and more likely to learn when:

- Learning is relevant
- Learning is problem centered
- Learning is in a supportive environment
- Learning is experience based
- Learning is active versus passive
- Methods for effective assessment & feedback are provided

Knowles, 1980
Needs analysis

- Identified our goals
  - Baby Friendly accreditation
  - Knowledgeable staff in supporting BF Mom’s

- Assessment of learners’ needs and available resources
  - What education was available for BF
  - Identify the learning gap
  - How do the knowledge, skills, attitudes, and behaviours differ from the ideal.
Goals and objectives

From the needs analysis we developed our learning objectives.

Well-stated objectives focus the design and function of the program, including evaluation.

Outcome based, specific, and measurable

At the end of this module, participants will be able to:

- Discuss BF care and challenges associated with a complicated BF experience.
Determine technical resources & needs

- Software & hardware available
  - Critically assess how well they meet our needs?
  - What are the limitations?
  - Most importantly, evaluate how well they promote active learning, and provide for assessment.

- Identify and address potential barriers to implementation
  - Resistance to online learning
  - Inadequate computer skills
  - Insufficient time, or perception that the curriculum is a low priority
Secure commitment from stakeholders

- Support from Administration
  - Credibility for the program
  - Support learners in their learning

- Support from learners
  - Buy-in and feedback
Develop content

- Capitalize on the unique capabilities of the internet
  - Articulate software, videos, online assessment tools

- Keep each element of the online curriculum focused on the educational objectives
  - Appropriate use of multimedia will stimulate and enhance learning
  - Must be educationally sound, otherwise just another tool!
Provide for active learning

- Select instructional methods that best satisfy the requirements of the course content, environment, learners.
  - “Talking” lectures using Articulate software
    - Learner control
  - Patient case studies and video
    - Useful for role modeling and skills training
    - Encourages application of knowledge
    - Aids in development of judgement and clinical reasoning
- Readings from the literature
  - Support evidence based practice
Provide for active learning

- Self-assessment through formative and summative quizzes
  - Self-assessment and reflection stimulate learning
  - Reinforce current knowledge or highlight knowledge gaps
Encourage learner participation

- Website accessible and user-friendly
- Educational credits (Nurses & Physicians)
- Online course evaluation solicit user response (Survey Monkey)
- Emails, newsletters, demonstrations, word of mouth, etc.
Pilot the online curriculum

- Modules were completed by an interdisciplinary team for review and feedback
- Appropriate changes made in response to feedback
A plan to monitor and maintain the site

- Technical problems need to be addressed
  - Links need to be tested periodically, update s/w for running multimedia

- Update content
  - Information needs to be current
  - Schedule periodic literature reviews
Multidisciplinary Breast Feeding Education

Welcome to the Breastfeeding Online Curriculum

The breastfeeding curriculum consists of 3 interactive modules with accompanying pre-tests. A post-test which encompasses all of the material in the curriculum is provided to assess knowledge acquisition. The breastfeeding articles are mandatory readings and are considered part of the breastfeeding curriculum. The entire curriculum will take approximately three hours to complete.

For information on how to obtain continuing education credits please refer to the Educational Credits heading (right-hand column) and select the appropriate link.

Program Goals:

- To promote the multidisciplinary provision of evidence-based practice to support breastfeeding initiation and duration among perinatal women and their families
- To provide opportunity for members of the multidisciplinary team to achieve educational credit required for certification as a “Baby Friendly” institution

Module 1 - Historical Perspectives and Current Initiatives

Objectives: At the end of this module, participants will be able to:

- Discuss the history of infant feeding
- Review recent evidence related to BF (breastfeeding) outcomes
- Explain current BF initiatives
  - Baby Friendly Initiative
  - The WHO “Code”

Pre-Test Module 1 Historical Perspectives and Current Initiatives

Module 1 Historical Perspectives and Current Initiatives
Conclusion

- Breastfeeding is an important key indicator to population health

- Multi disciplinary education is an important determinant in supporting BF initiation and duration
There are no costs associated with the use of this Breast Feeding online curriculum.

To access the BF curriculum click on the link below:

http://umanitoba.ca/faculties/medicine/units/obstetrics_gynecology/breastfeeding.html
References


