With permission Bill and Pat Ivy

BCAPOP

Woman-centred Support: Breastfeeding & Beyond

Marianne Brophy

Objectives

By the end of the session, participants will be able to:

1. Identify the **importance of breastfeeding** as a public health strategy to address inequities/disparities
2. Understand the **enabling role** of support and care providers
3. Support clients to make **informed decisions** re infant feeding using a **trauma-informed** perspective
4. Discuss ways to support a mother to obtain **good latch** and transfer of milk

1. Breastfeeding is important – how are we doing?

Anik's informed decision

Anik is 20 weeks pregnant when she comes to the prenatal clinic. She says has not yet decided how she plans to feed her baby. Many of her friends have told her it does not really matter how she feeds her baby ….

*What do you need to know to support Anik to make an **informed decision**?*

INFANT FEEDING

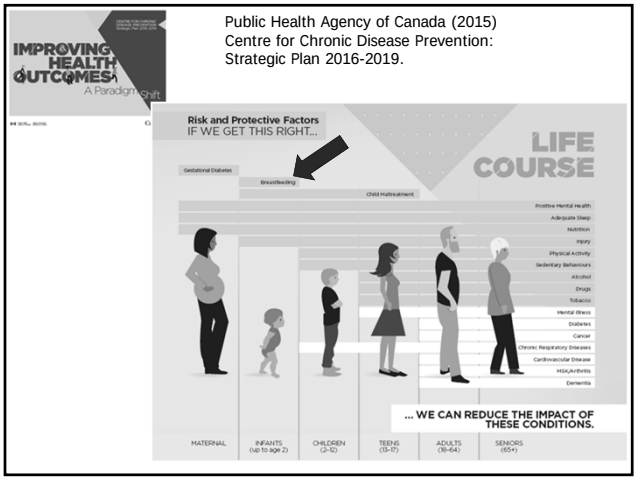
1,000 DAYS

"The 1,000 days between a woman's pregnancy and her child's 2nd birthday offer a unique window of opportunity to shape healthier & more prosperous futures.

The right nutrition during this 1,000 day window can have a profound impact on a child's ability to grow, learn, and rise out of poverty.

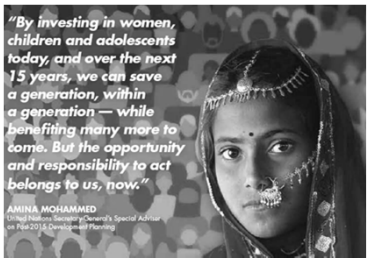
It can also shape a society's long-term health, stability and prosperity."

http://www.thousanddays.org/about



Public Health Agency of Canada (2015) Centre for Chronic Disease Prevention: Strategic Plan 2016-2019.

Committing to Action



http://www.who.int/pmnch/media/events/2015/gs_2016_30.pdf

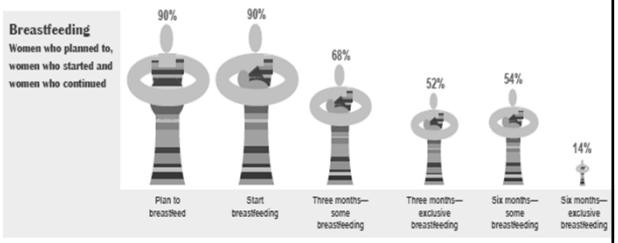
Breastfeeding

Global Recommendations

- Initiate breastfeeding immediately after birth (skin to skin)
- Breastfeed exclusively from birth to 6 months
- Introduce safe and nutritionally adequate table foods from about 6 months
- Breastfeed for 2 years and beyond

Benefits are dose dependent

WHO, Health Canada, Canadian Pediatric Soc, Dietitians of Canada



Mothers Voices
Maternity Experiences Survey 2006-2007

Sub-optimal breastfeeding - WHO

BC breastfeeding rates

Approximately what percentage of babies in BC are exclusively breastfeeding at 6 months?

a) 5%
b) 15%
c) 35%
d) 75%

2. Big picture context - enabling breastfeeding

What will it take to improve breastfeeding practices

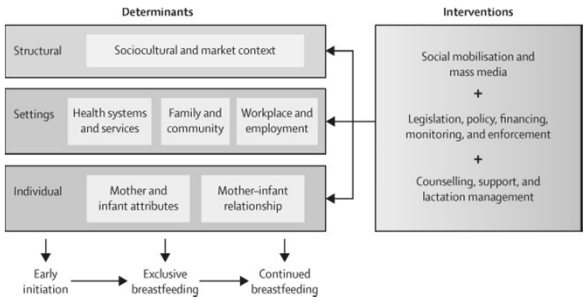


Figure 1: The components of an enabling environment for breastfeeding – a conceptual model

Rollins, N.C., Bhandari, N., Hajeebhoy, N., Horton, S., Lutter, C. K., Martinew, J.C., Piwoz, E.G., Richter, L. M., Victora, C.G. (2016)
Why invest, and what will it take to improve breastfeeding practices?
The Lancet , 387,10017: 491-504.
doi: http://dx.doi.org/10.1016/S0140-6736(15)01044-2

Social Determinants of Health

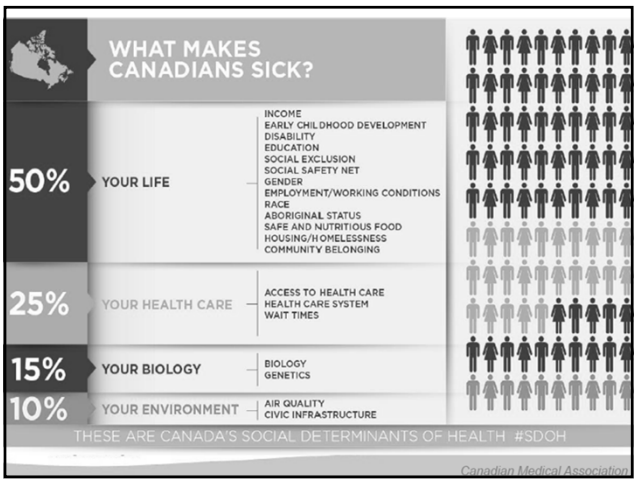
- The conditions in which people are born, grow, live, work and age (including the health system)
- Shaped by the distribution of money, power and resources at global, national and local levels, which are all influenced by policy choices

WHO 2010

- Early childhood development is a key determinant of health

Vancouver Coastal Health

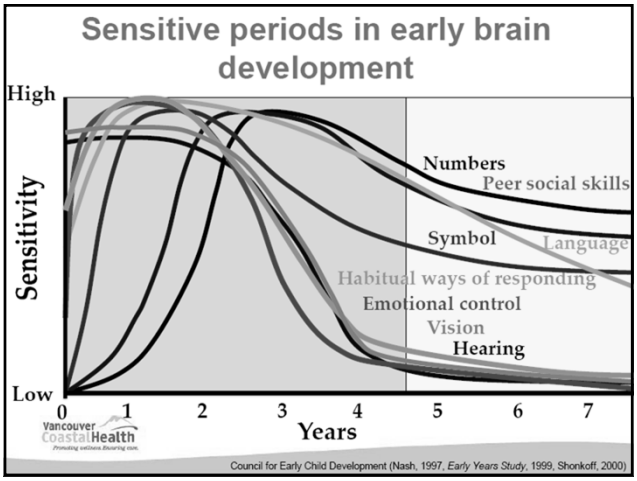
Dr. Mark Lysyshyn MHO



Who is at risk of not breastfeeding ?

- Age
- Education
- Socio-economic status
- Culture
- Physical & mental health status
- Support system

Most Vulnerable



Culture…

..exerts a major influence on a mother's attitude towards bf and how she decides to feed her baby. …. Culture is defined as values, beliefs, norms and practices of a particular group which are learned, shared and guide thinking, decisions and actions in a patterned way .. Without understanding the mother's cultural practices, our care and intervention could do more harm than good."

Riordan, J; Auerbach K (1993)

Breastfeeding abd Human Lactation, Jones & Bartlett (p27)

"A community and nation that takes the responsibilities of breastfeeding seriously, that honours and respects the needs of the birthing women to have the time and support they need in order that breastfeeding is established, is a nation that cares about the long term health of its people."

Carol Couchie, NONASOWIN, Union of Ontario Indians, 1995.

Centres for Excellence for Children's Well Being, 2009.
Aboriginal Parents: Eyes on Breastfeeding – More than Loving Contact

Exclusivity & Duration Rates

- mother's intention & positive attitude
- support and encouragement
  - **partner,** family, friends, role models
  - health care providers and systems
  - workplace compatible
  - public spaces – acceptance of bf
  - no advertising by formula companies

Dusdieker LB et al (2006). Prenatal office practices regarding infant feeding choices. Clinical Pediatrics 45

Digirolamo AM et al (2003). Do perceived attitudes of physicians and hospital staff affect breastfeeding decisions? Birth 30 (2)

Client Education Anticipatory Guidance

Health Professionals & peer support

- **Influence mother's intention to bf**
- **Increase maternal confidence**
- **Enhance the bf experience**
- **Reduce the risk of early weaning**

Bias?

Anik's informed decision

Which approach might positively influence Anik to breastfeed?

a. Remain neutral to avoid putting pressure on her
b. Provide information handouts for her to take home and read
c. Discuss the health outcomes for breastfeeding and make it clear you think breastfeeding is important

Prenatal window of influence

When do women make their decision about how to feed their baby?

- 50% before pregnancy
- 26% during pregnancy
- 11% after birth

Earle S. Factors affecting the initiation of breastfeeding: implications for breastfeeding promotion. Health Promotion International 2002: 17 (3).

Impact of 1 simple face-to-face prenatal breastfeeding discussion

- Significant breastfeeding practice improvement up to 3 months after delivery
- Print and audiovisual ed. materials are not enough

Simple antenatal preparation to improve breastfeeding practice. A randomized controlled trial

Mattar CN ; Chong YS ; Chan YS ; Chew A ; Tan P ; Chan YH Rauff MH
Department of Obstetrics and Gynaecology
National University Hospital, Singapore
Obstet Gynecol. 2007; 109(1):73-80 (ISSN: 0029-7844)

Self-efficacy theory

- Derived from social learning theory (Bandura 1977,1982)
- "Ongoing cognitive process in which individuals determine their confidence or their perceived ability for performing a specific behavior.
  Factors influencing this ability consist of the
  - individuals' motivation,
  - emotional state, and
  - social environment." (Wambach and Riordan 2016)
- i.e. a variable that can be modified

Breastfeeding Self-Efficacy Scale
Dennis and Faux

- Content, construct & predictive validity
- Strong predictor of bf initiation, exclusivity & duration (Tuthill et al, 2016)
- Self-efficacy expectancies based on M's
  - Previous bf experience
  - Observations of successful bf
  - Encouragement received from others
  - Mothers state of wellness

(Wambach and Riordan 2016)

TABLE 2
BSES-SF Items With Principal Components Factor Loadings

	Item
★1	Determine that my baby is getting enough milk
2	Successfully cope with breastfeeding like I have with other challenging tasks
3	Breastfeed my baby without using formula as a supplement
★4	Ensure that my baby is properly latched on for the whole feeding
5	Manage the breastfeeding situation to my satisfaction
★6	Manage to breastfeed even if my baby is crying
7	Keep wanting to breastfeed
8	Comfortably breastfeed with my family members present
9	Be satisfied with my breastfeeding experience
10	Deal with the fact that breastfeeding can be time-consuming
★11	Finish feeding my baby on one breast before switching to the other breast
12	Continue to breastfeed my baby for every feeding
13	Manage to keep up with my baby's breastfeeding demands
★14	Tell when my baby is finished breastfeeding

Identify and support those at risk:

- **At risk of choosing not to breastfeed**:
  - Lower education level
  - Younger maternal age
  - Lower income
  - Smoking
  - Belief in "myths"

Mental health, Trauma Addictions

- **At risk of mixed feeds/short duration**:
  - Lack of support or confidence
  - Inconsistent/inaccurate information
  - Difficulties (sore nipples, supply, fatigue, PND)
  - Early return to work
  - Early introduction of formula or solids

Barriers to Bf

Bolling, K. et al 2005. Infant Feeding Survey 2005. London: The Information Centre.

Impact of care providers?

- Assessment
- Anticipatory guidance/ knowledge translation
- **Build self-confidence of the mother** (primary decision-maker)

Assessment

Mother

M:B relationship

Baby

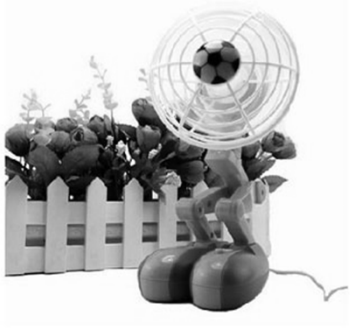
Support
- Family
- Health care
- Community

Protect, Promote & Support

- Believe bf promotes health of women, children and society
- Provide consistent, current, non-biased information
- Accept all mothers in a positive, non-judgmental way

3. Best practice (trauma informed) to support client's informed decisions

Stuff Happens



Big picture with a back story

Trauma – life time effects

- **Acute trauma**
- **Chronic relation-based trauma**
  - 80% parents + 20% relatives/ adult friends
- **Impact on children – damage to**
  - **Relational functioning** (attachment, hostile/ withdrawn)
  - **Brains** (attention, abstraction, reasoning, executive function)
  - **Sense of self** (attributions re world, social skills)

Kendall-Tackett (2005)Handbook of Women, Stress &Trauma.

Trauma – repeating cycles

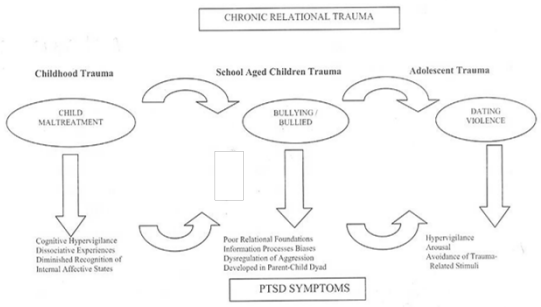


FIGURE 1.1. Theoretical model integrating experiences of chronic trauma at different stages of development.

Kendall-Tackett (2005)

Trauma Informed Practice

Dr.Nancy Poole

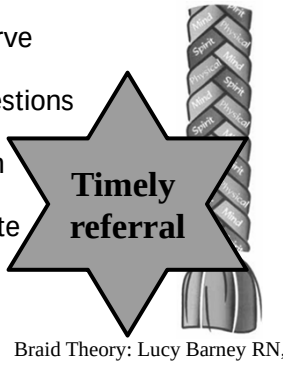
Key Principles

- **Awareness of impact**
- **Emphasize safety & trustworthiness**
- **Opportunities for choice, collaboration & connection**
- **Strengths-based & skill building**

LOVE method

http://itcaonline.com/wp-content/uploads/2011/10/Module-2-Rapport-Building.2010.pdf

- Listen and Observe
- Open-ended questions
- Validate & Affirm
- Empower/Educate



Braid Theory: Lucy Barney RN, MSN

Cultural competency / personal bias

"It's a misconception that racism is always overt and intentional.

Far more common is an incorrect assumption or stereotype, based on someone's racial or ethnic background.

This more subtle prejudice often occurs without conscious malicious intent."

Smylie J. (2007). Cultural competency starts with respect. *The Canadain Nurse 103(8):48*

http://www.wellesleyinstitute.com/wp-content/uploads/2015/02/Summary-First-Peoples-Second-Class-Treatment-Final.pdf

Smylie cont.

"My mother, a nurse and a proud Metis woman who survived a level of attitudinal racism during her childhood in Saskatoon that I can only imagine, taught me my first and most important lessons about respect. *She taught me that being respectful starts with self-awareness and humility* - I am no better than anyone else and I should never forget it. With her lessons in mind, it has been easier for me to open my heart to others, even when I am challenged by apparent differences in values, attitude, appearances and experience. My life has been vastly enriched by the new understandings and perspectives these connections across difference allow." (Italics mine)

Informed decision

- **Opportunities to discuss concerns**
- **Importance of breastfeeding**
- **Health consequences of not bf.**
- **Risks & costs of substitutes**
- **Difficulty of reversing decision**
- **Mothers choosing not to breastfeed**
  - **AFASS**
  - **Individual instruction by Health Prof**
    - prep, store, feed

Motivational Interviewing as a *Counselling* Style

- Democratic partnership – each bring expertise
- Resolve ambivalence (intrinsic motivation and values)
- Activate innate capability for beneficial change
- Directive –goal of eliciting self-motivational statements and enhancing motivation for positive behavioral change

http://www.ncbi.nlm.nih.gov/books/NBK64964/

Mother's experience of support

Support providers: client-centred care

- Knowledge
- Effectiveness
- Sensitivity and relational competence
- Accessibility

Chaput, K.H., Adair, C.E., et al (2015). The experience of nursing women with breastfeeding support: a qualitative study. *Canadian Medical Association Journal Open, 3*, E305-E309. doi:10.9778/cmajo.20140113

Case Study 1

- Trauma informed
- Informed decision
- Motivational health promotion
- Building self-efficacy

Trauma – what can we do?

- **Prevention**
  - **Societal support for parents & families**
  - **Schools – promote healthy relationships**
  - **Social norms/ laws (non-abusive relationships)**
- **Intervention support**
  - **Develop relationship skills**
- **Treatment**
  - **Across the lifespan**

Women who were sexually abused

- Pregnancy, birth and breastfeeding may awaken disturbing thoughts and feelings
- Create opportunities for listening and discussion
- Breastfeeding has been healing for many
- http://www.babyfriendlynl.ca/guest/sexual-abuse-why-shouldnt-i-breastfeed/

Bf protects against child abuse

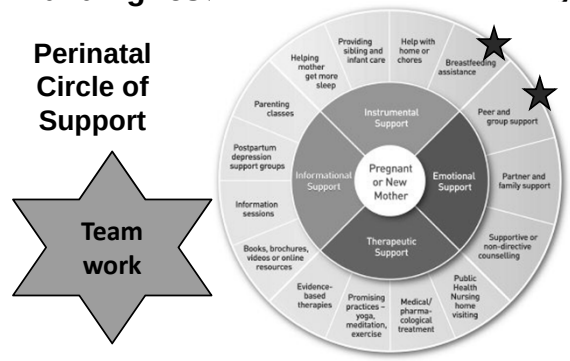
Strathearn et al, *Pediatrics 2009;123:483–493*

- 7223 Australian M-B pairs – 15 yr study
- 5890: anal. duration of bf/ maltreatment
  - No maltr., non-M. & M perpetrated maltr.
- 512 substantiated maltreatment cases
  - >60% had 1 or more M-perp. maltreatmt
  - Non-bf > bf for 4 m - 4.8 x odds
  - After confounders: 2.6 x odds
- Bf may help protect, particularly neglect

Building resources in the community

Perinatal Circle of Support

Team work



Best Start Resource Centre. (2009). *Creating Circles of Support for Pregnant Women and New Parents: A manual for service providers supporting women's mental health in pregnancy and postpartum.*

4. Evidence base to practice – building self-efficacy

The benefits of breastfeeding are evidence-based, but the **mechanisms for supporting all women**, including those who do not breastfeed, to feel confident in their relationship with their baby require practical and emotional support.

UN Convention on the Rights of the Child focus

The evidence and rationale for the UNICEF UK Baby Friendly Initiative standards
http://www.unicef.org.uk/Documents/Baby_Friendly/Research/baby_friendly_evidence_rationale.pdf

Bf in the Information Age

- Google (information)
  - Media Portrayal of bottle/ breastfeeding
    Henderson et al 2000
- Pubmed (evidence)
  - Reliability/ validity/ trustworthiness?
  - Evidence base to practice?
- Critical reading & thinking skills
  - Vital link to successful patient outcomes

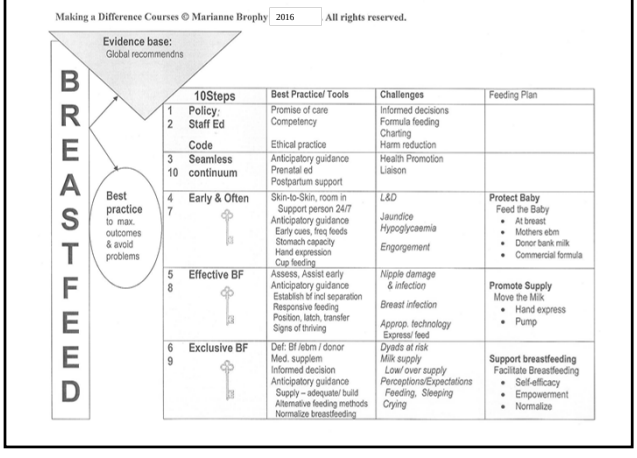
What can be done to improve and measure breastfeeding outcomes?

Best practice tools?

Baby-Friendly Initiative – Reframes the responsibility for breastfeeding success:

mother, partner, family, health care system, society, government …..

Translates knowledge



Ten Steps: Themes

Policy (1) and Staff Education (2)
Ethical practice (WHO Code)
Seamless continuum of care (3 & 10)
Mother Baby Togetherness (4 & 7)
Practical assistance (5 & 8)
Exclusive breastfeeding at the breast (6 & 9)

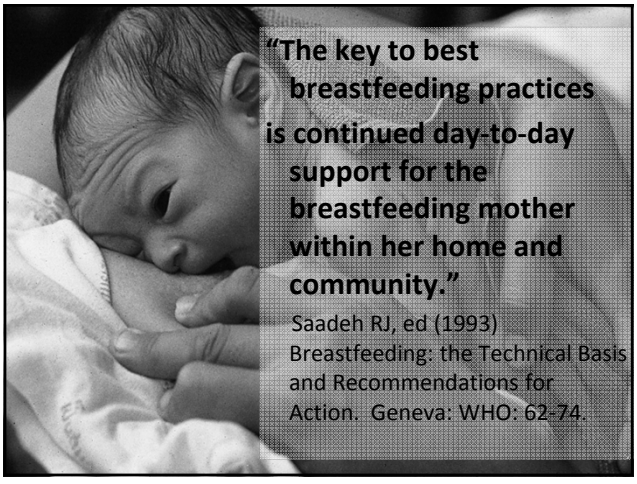
Breastfeeding Best Practice

- **Early and Often**
  - Skin to skin & early cues
- **Effective Breastfeeding**
- **Exclusive Breastfeeding**

Ongoing Breastfeeding support

- Health care providers across the continuum of care (BFI)
- Peer support (BFI Step 10)
- PHAC Protecting, Promoting and Supporting Breastfeeding: A Practical Workbook for Community-Based Programs

http://www.phac-aspc.gc.ca/hp-ps/dca-dea/publications/pdf/ppsb-ppsam-eng.pdf



Case Study 2

Supporting the initiation & establishing of effective, exclusive breastfeeding – resolving challenges

Breastfeed early & often

- **Skin-to-skin initiation**
  - **Baby – safe transition**
  - **Mother – wellbeing and bonding**
- **Feeding cues and frequency**
- **Hand expression and cup feeding**

Effective breastfeeding

- **Positional stability**
- **Latch**
- **Milk intake and thriving**
- **Breast and nipple care**

Exclusive breastfeeding

- **Supplements**
  - **why, what, how, how much**
  - **Milk bank vs milk sharing**
- **Building supply**
- **Mothers not breastfeeding**
  - **Informed decision**
  - **Individual instruction**
  - **Harm reduction**

Early and Often
SSC - Initiation of bf

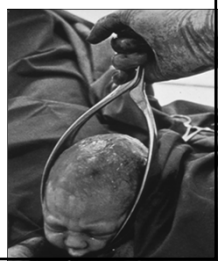
https://www.healthyfamiliesbc.ca/home/articles/video-breastfeeding-and-skin-skin-contact

ABORIGINAL DOULA SUPPORT

"The art of birth, women supporting women in child birth"

Breastfeeding is part of a continuum

- Antenatal care impacts intention to breastfeed
- Labour and delivery care impact dyads readiness to breastfeed
- Breastfeeding starts with skin-to-skin contact



Baby
STS-Safe Transition

Skin-to-skin Care

- **Stabilizes infant**
  - **temperature**
  - **heart rate**
  - **breathing** (Moor et al 2007, Bergman 2000)
- **Reduces stress hormones in baby by 74%** (Modi & Glover 1998; Mooncey 1997)
- **Triggers feeding behaviours** (Righard 1990, Widstrom 1990, Varendi 1998, Matthiesen 2001)
- **Less crying, better gains, earlier discharge** (Wahlberg 1992; Anderson 1989)

Reduces stress and Pain

Modi & Glover 1998
Weissman et al 2009

Skin to skin initiates organized, predictable, sequential, pre-feeding behavior that leads to effective, coordinated suckling.

PEDIATRICS Vol. 102 No. 5 Supplement November 1998, pp. 1244-1246

RESEARCH PERSPECTIVES:
Mother and Infant: Early Emotional Ties, Marshall Klaus

Skin to skin/ early initiation

Breastfeeding

- Longer and more frequent
- Greater milk volume Bystrova et al., 2007a, 2007b
- More exclusive breastfeeding
  from birth to discharge Bystrova et al., 2007c
- Longer duration of breastfeeding to 6m
  Anderson et al., 2003; Mikiel-Kostyra et al., 2002;Mizuno et al., 2004; Moore et al., 2007,; Nakao et al., 2008; Thomson et al.,1979; Vaidya et al.,2005

Early and Often
M -STS -Bonding

Skin to skin / early initiation

- **Maternal**
  - Less PPH, faster placental expulsion
    Marin et al., 2009, 274 women
  - Higher oxytocin – baby massages breast – more suckling and milk production
    Matthiesen et al., 2001; Widström et al., 1993, 2011

Skin-to-skin care: *Psychosocial* benefits for mother and baby

- Baby cries less
- Early mother-infant interaction: bonding
- Maternal well-being-attachment
- Less infant abandonment, maltreatment
- Mother-infant interaction at one year old

Maternal well-being & attachment

Skin-to-skin:
- Less maternal stress: reduced gastrin blood level
- Better maternal well-being: increased oxytocin

Early breastfeeding:
- Significant less depression, greater sociability
- Greater maternal well-being: 2x plasma endorphins

Frequent maternal wellbeing→ attachment
due to repeated activation of opioids and oxytocin

Ali et Lowry,1981; Anderson et al., 2003; Bystrova et al.,2007b ; Carfoot et al., 2005 ; De Château et Wiberg ,1977a ,1977b ; Hales et al. ,1977; Kennel et Klaus ,1998; Klaus et al.,1972; Klaus et Kennel, 1976; Moore et al., 2007; Velandia et al., 2010; Widström et al. ,1990; Winberg , 2005

Less infant abandonment, maltreatment

- Significantly less parental negligence and maltreatment in socially vulnerable families
- Less early abandonment of infants in postnatal period

Anderson et al., 2003; Lvoff et al.,2000; Strathearn et al., 2009 ; Winberg & Christensson, 1995

Mother-infant interaction at one year

Uninterrupted skin-to-skin for 2 hrs at birth positively impacts

- mother's sensitivity
- child's self-regulation
- mutual reciprocity
- (Parent-Child Early Relational Assessment)

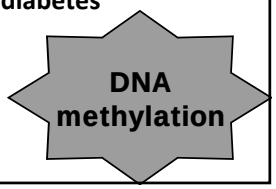
when the child is one year old

all confounding variables considered

Bystrova et al., 2009

Early experiences influence brain and body chemistry

- **Maternal behaviour towards infant determines indiv. differences in stress reactivity of the <u>adult</u> (Szyf)**
- **Higher stress reactivity ➡ higher risk of**
  - **Heart disease, Type 2 diabetes**
  - **Alcoholism**
  - **Affective disorders**
  - **Brain aging**



Early and Often
Cues, Frequency

Expectations?

Normalizing Expectations

- Newborns feed at least 8 times per 24 hours in the early days, cluster feed
- Cue - based feeding **Early and Often**
- Sleep when baby sleeps
- It takes time to establish breastfeeding

Small Tummies Need to Feed More Often

Day 1
5-7 mls

Day 3
22-27 mls

Day 10
60-81 mls

AAP Residents curric – mgt of common bf situations

Establishment of Breastfeeding — Colostrum

- The first milk, colostrum, is rich in protein and antibodies
  - Neutrophils in colostrum promote bacterial killing, phagocytosis, and chemotaxis
- Small volume is normal:
  - 7-123 ml/day first day
  - 2-10 ml/feeding day 1
  - 5-15 ml/feeding day 2

Saint, L., Smith, M., Hartmann, P.E. The yield and nutrient content of colostrum and milk of women from giving birth to 1 month post-partum. *Br. J. Nutri.* 1984; 52: 97-95.

Early and Often: Feeding Cues

- Sucking movements
- Sucking sounds
- Hand to mouth movements
- Rapid eye movements
- Soft cooing or sighing sounds
- Restlessness

Crying is a late cue

Video: **Feeding cues and behaviours**

https://www.healthyfamiliesbc.ca/home/articles/video-about-baby-feeding-cues-and-behaviours

Cue-based feeding

- Breastfeeding
  - More effective position and latch
  - Longer duration
- More milk: earlier onset, ↑ volumes
- Weight: ↓loss, ↑regain birth weight
- Fewer challenges:
  - Mother: engorgement, sore nipples
  - Baby: jaundice, hypoglycaemia

Waking a sleepy infant

Goal: transition to active alert state

- Watch for early cues
- Skin-to-skin with mother
  - Undress/ unwrap baby
- Change diaper
- Massage infant's back, arms and legs

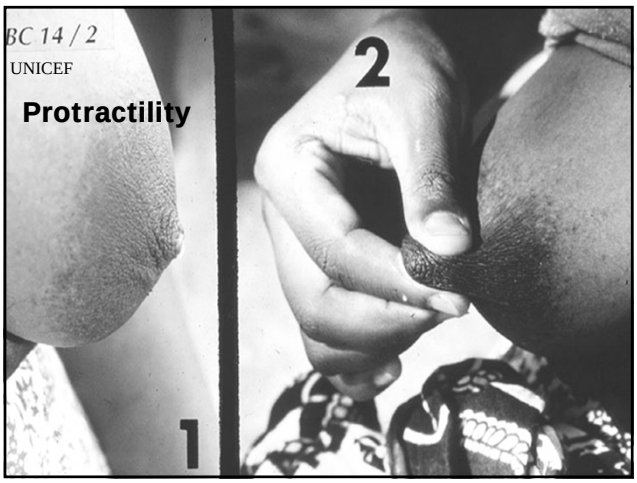
Hand expressing

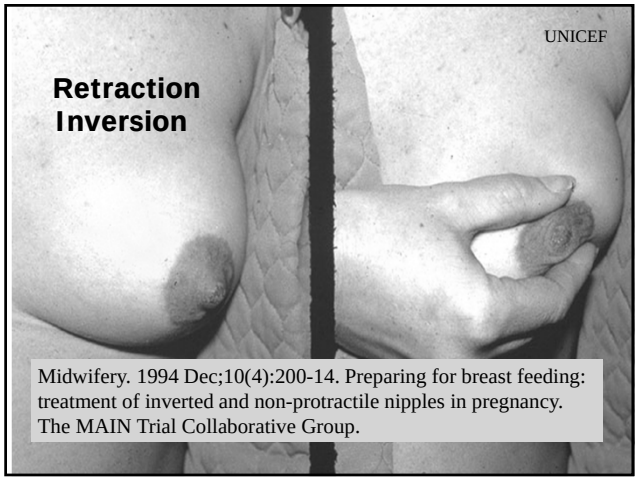
www.healthyfamiliesbc.ca/home/articles/topic/feeding

Milk storage

BBC p106

http://www.toronto.ca/health - click on Health Professionals - protocols





Midwifery. 1994 Dec;10(4):200-14. Preparing for breast feeding: treatment of inverted and non-protractile nipples in pregnancy. The MAIN Trial Collaborative Group.

Hand expression videos

- Dr. Jane Morton

http://newborns.stanford.edu/Breastfeeding/HandExpression.html

- National Breastfeeding Committee of Denmark:

How to Milk by Hand; How to Feed From a Cup

Distributed by: www.healthed.cc

Breast pumps... If mom and baby are separated or baby is not breastfeeding

< **1hr – start expressing**

< 48 hours hand expression is best
- collect colostrum
- stimulate production
- empower mom

> 48 hrs hand expression

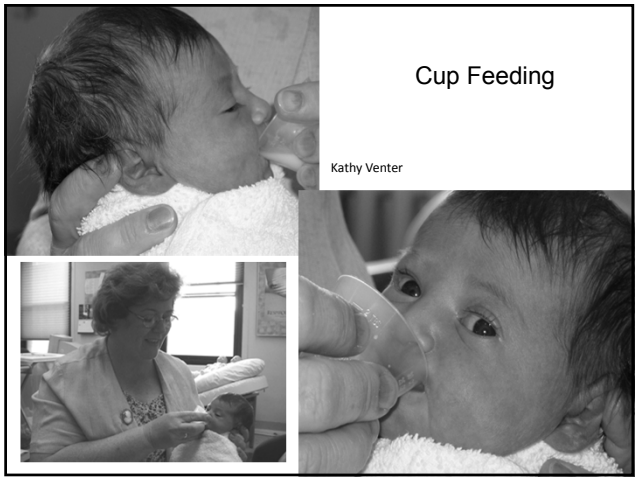
hand pump

electric pump

Use pumps carefully:

- right pump for the purpose
- right size flanges
- right vacuum pressure
- right timing
- right frequency
- cleaning instructions

More in class 6

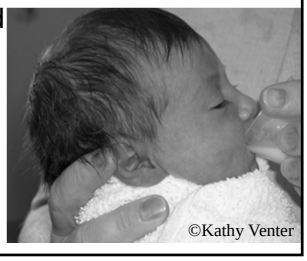


Cup Feeding

Kathy Venter

Cup feeding

- Baby led
- Positive oral experience
- Appropriate oral behaviors
- Little energy needed
- Oral enzymes
- Fat conserved
- Eye contact
- Hygienic



©Kathy Venter

Summary: Dyad in Transition Support self-efficacy		
Dyad	**Challenges**	**Tool kit**
Mother: motherhood	Medicalization ↓Support Expectations	Empowerment LOVE method Normalize bf
Baby: womb to world	Safe transition Separation Stress	Skin to Skin Hand expression Togetherness

Effective Breastfeeding - Position

Positioning - Mom

Comfortable position

Back well supported

Raised feet if sitting in chair

Shoulders relaxed = breasts at natural level

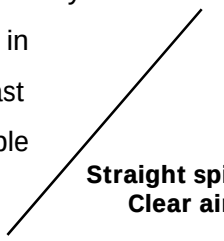
Bring baby to the breast

- Pillow?

Position for Effective BF

Stability

- Tummy to mummy
- Bum tucked in
- Chin to breast
- Nose to nipple



Straight spinal axis
Clear airway

Latch
for
Effective Breastfeeding

BBC p100

www.healthyfamiliesbc.ca/home/articles/topic/feeding

Components of effective latch

- **Nipple free of pain or trauma**
- **Nipple not distorted at the end of a feed**
- **chin touching breast, baby's mouth wide open**
- **Greater cover of areola with lower jaw**
- **Cheeks full, no dimpling evident**
- **Rhythmic suckle with nasal swallow sound**
- **Mother's hand supports neck and shoulders**

Rebecca Glover

Breastfeeding Education Materials

http://www.rebeccaglover.com.au

- DVD Follow Me Mum
- Teaching charts &Tear off Sheets: Attachment/ latch and Holding Me
- Free Download – Teaching Tools:
  - 7 Fundamental Latching Behaviours
  - Pocket Flash Cards
  - Helping Continuum Table

For effective milk transfer:

Baby in organized state

Empower the bottom jaw (flexion)

Correct position and use of the tongue during suckling

Signs of milk transfer

- Alert baby, cues, is satisfied
- Nutritive sucking, **audible swallow**
- Relaxed arms and hands
- Adequate age-appropriate
  - Weight gain
  - Output
- Baby well hydrated

Maternal signs of milk transfer

- Strong tugging (not painful)
- Uterine contractions (first 3-5 days)
- Milk leaking from other breast
- Relaxation, thirst
- Breast softer after feed (once milk in)
- Elongated nipple- no pain/ molding

Signs of Effective Breastfeeding Mother

- Pain: none or minimal with latch
- Nipples intact
- Breasts
  - increase in firmness, weight, size
  - fullness relieved by feeding
- Milk volume noticeably up by day 5

Signs of Effective Bf: Baby

- Audible swallowing during feed by day 4
- Weight
  - loss ≤ 7% (NVD) -10% (C/S)in 72h
    no loss after day 5
  - gain = 20 – 35g/d by day 5; birth wt day 10
- Output
  - urine: ≤ 3 by day 3, clear/ pale yellow by day 4
  - bm: ≤ 3 by day 3, seedy/ yellow by day 5
- Satisfied/ content after feeds

Getting enough? Thriving?

- Frequency: feeds at least 8/ 24 hours
- Suckling rhythm slows, audible swallows
- Baby ends feed satisfied
- Alert, muscle tone and skin elasticity
- Wk 1: 5+ wet diapers/ 24h (pale urine)
- Wk 1: 3 – 5 poos (fewer after ~ 6 weeks?)
- Steady gains (age approp; 20–30 g per day)
- Length and head circumference growing

Nipple Care

Wash hands before feeds

Avoid lotions, oils or non-medicinal ointments

Express a little milk after feeds and apply to the nipples – air dry

Wear comfortable bras - beware under wires or too tight straps (blocked ducts)

Use cotton liners - change them frequently to discourage growth of bacteria and yeast

Cotton liner pattern BBC p104

EXCLUSIVE BF

Exclusive Breastfeeding

Exclusive breastfeeding means that no foods or drink other than breastmilk are given to a baby.

Ebm/ donor

No pacifiers or artificial teats are given to a baby

Medically indicated

There are rare exceptions during which the infant may require other fluids or food in addition to, or in place of, breast milk. The feeding programme of these babies should be determined by qualified health professionals on an individual basis.

WHO 2009 BFHI Slide 4.6.7

Healthy Term Infants

- Supp volume guided by colostrum vol.

TABLE 3. AVERAGE REPORTED INTAKES OF COLOSTRUM BY HEALTHY BREASTFED INFANTS[45–48]

Time	*Intake (mL/feed)*
1st 24 hours	2–10
24–48 hours	5–15
48–72 hours	15–30
72–96 hours	30–60

ABM (2009) Clinical Protocol #3: Hospital guidelines for the use of supplementary feedings in the healthy term breastfed neonate.
DOI: 10.1089/bfm.2009.9991

Supplement – what?

- Mother's own ebm
- Pasteurised donor milk
- Formula
  - Protein hydrolysate formula
  - Standard ready to feed/ liquid concentrate

Glucose water is not appropriate supp.

True/ perceived low supply?

- Ask about the big picture & relationship
  - Baby's output, gain, temperament, sleep
- Early & Often/ Effective/ Exclusive?
  - Point out signs of adequate intake
- Enhance effective latch and transfer
  - Right brain problem solving
- Follow up and support

Building milk supply

- **Skin to skin –any age**
  - **baby carriers also help**
- **Rest, adequate fluids**
- **Avoid alcohol, nicotine**
- **Psycho-social support**
- **Frequent, effective milk removal (min. 8/ 24 h)**
  - **Effective breastfeeding, switch nursing**
  - **Hand expression or pump**
  - **Breast compression, massage**

Human milk banking

- HMBANA guidelines, donor screening
- Pasteurization, culture, freezing
- Rx and recipient informed consent
- Nutritional components not altered – carbohydrates, fats, fat-soluble vits, salts
- Components altered/ reduced-

  Protein (13% denatured)

  IgA (67-100% active); IgG (66-70% active)

  Lactoferrin (20% active); Lysozyme (75% active)

Informal milk sharing

- Traditional practice in many cultures
- Internet – expanded to strangers
- Increased risk for transmission of
  - Disease (HIV, HTLV, TB
  - Contaminants

  Health Canada, CPS, FDA, AAP and many others
- HMBANA banks – low supply, $
- For-profit banks
- Informed decision - recipients

Microbial Contamination of Human Milk Purchased Via the Internet

CONCLUSIONS:
Human milk purchased via the Internet exhibited high overall bacterial growth & frequent contamination with pathogenic bacteria, reflecting poor collection, storage, or shipping practices.
Infants consuming this milk are at risk for negative outcomes, particularly if born preterm or are medically compromised.
Increased use of lactation support services may begin to address the milk supply gap for women who want to feed their child human milk but cannot meet his or her needs.

Keim SA et al. Pediatrics 2013;132:e1227–e1235
DOI: 10.1542/peds.2013-1687

Ineffective Feeding: Plan

Feed the baby	Ebm on cue Medically indicated supps. Informed decision
Move the milk	Enhance position & latch Hand express, pumping
Facilitate bf	Skin to skin, no separation Empower self-efficacy Support person Approp. Tech.

Mothers not breastfeeding Mothers supplementing

Informed decision

Individual Instruction

- Selection of breastmilk substitute
- Preparation of formula
- Storage
- Feeding (cue-based, paced)

Harm reduction

Formula Facts

- Homemade formula is nutritionally inadequate, proteins not modified
- Commercial formula meets Codex Alimentarius standards
  - Liquid concentrate (sterile till opened)
  - Liquid ready to feed (sterile till opened)
  - Powdered (may be contaminated pre-opening)

Joint FAO/ WHO Workshop on *E. sakazakii* and Other Microorganisms in Powdered Infant Formula:

In situations where infants are not breastfed, caregivers, particularly of infants at high risk, should be

- regularly alerted that powdered infant formula is not a sterile product and can be contaminated with pathogens that can cause serious illness; they should be provided with information that can reduce the risk.

- encouraged to use, whenever possible and feasible, commercially sterile liquid formula or formula which has undergone an effective point-of-use decontamination procedure (e.g. use of boiling water to reconstitute or by heating reconstituted formula).
- Guidelines should be developed for the preparation, use and handling of infant formula to minimize risk.

http://www.who.int/foodsafety/publications/micro/Summary.pdf

http://www.who.int/foodsafety/publications/powdered-infant-formula/en/

Formula facts (cont)

- Modified cow or soy milk (allergens?)
- Lacks key nutrients in breastmilk
- Baby may be overfed
- Specialty formulas
  - Hydrolysed proteins, lactose free
    Nutramigen, Pregestamil, Alimentum
- No evidence for
  - Premature (classified as experimental by FDA)
  - Lactose free; Thickened; DHA/ARA
  - Follow-on (WHO discourages)

Care for mother

- Informed decision - all mothers
  (bf + supplements, replacement feeding)
- Support (grieving, anger, denial)
- Skin-to-skin, cue-based feeding
- Age appropriate feed volumes
- Careful preparation, storage, handling and feeding is vital for safety

http://www.who.int/foodsafety/publications/powdered-infant-formula/en/

Teach parents and return demonstration

Responsive Bottle Feeding

- Mother regulates flow from bottle
  protect breathing, heart rate, oxygen saturation
- Hold baby upright, support head/neck
  - Use wide-based, slow flow nipple
  - Trigger wide mouth, let baby accept nipple
  - Keep bottle horizontal, nipple partly full
- Dangerous signs
  - Gulping, milk leaking from mouth
  - Stridor, gasping, flared nostrils, grimacing
  - Eyes opened widely, cyanosis