

Increasing Breastfeeding Self Efficacy Across the Prenatal to Postpartum Spectrum

Cindy-Lee Dennis, PhD

Professor in Nursing and Psychiatry, University of Toronto

Canada Research Chair in Perinatal Community Health

Research Chair in Women's Health, St. Michael's Hospital



Overview

PART I:

Importance of Breastfeeding Confidence

PART II:

What is Breastfeeding Self-Efficacy

PART III:

The Breastfeeding Self-Efficacy Scale

PART IV:

Current Research Initiatives

PART V:

Clinical Implications

Canadian Breastfeeding Rates

Good News!

- Breastfeeding rates continue to rise in the Canada
- 89% of mothers initiated breastfeeding in 2012, a slight increase from 85% in 2003
- More mothers were breastfeeding exclusively at 6 months: 26% in 2012 compared with 17% in 2003

However...

Only 1 in 4 mothers are achieving breastfeeding recommendations



Dose-Response Effect

- Breastfeeding has a dose-response effect, with increased benefits being proportionate to the extent of breastfeeding duration and exclusivity
- Suboptimal breastfeeding rates indicate that mothers and their infants are not receiving the maximum health benefits breastfeeding provides

Target Non-Modifiable Risk Factors

- Many health professionals have targeted mothers at high risk to prematurely discontinue breastfeeding → based on non-modifiable demographic characteristics:
 - Maternal age
 - Marital status
 - Education level
 - Socioeconomic status



Modifiable Risk Factors

If health professionals are to effectively improve low breastfeeding exclusivity and duration rates, they need to reliably assess high-risk mothers and identify predisposing factors that are amenable to intervention

How can we reliably identify mothers early who are at high-risk to prematurely discontinue breastfeeding?

One possible modifiable variable is:

Breastfeeding Confidence

Breastfeeding Confidence

- The saliency of breastfeeding confidence has been demonstrated consistently:
 - Initiation
 - Duration
 - Exclusivity
- Pregnant women who lack confidence in their ability to breastfeed are significantly more likely to not initiate breastfeeding or to discontinue before 2 weeks postpartum
- Deterioration in breastfeeding confidence during the early postpartum period is a major factor in the decision to stop breastfeeding

Insufficient Milk Supply

- Breastfeeding confidence is also associated with maternal perceptions of insufficient milk

Common milk supply **False Alarms**

1.

Baby appears hungry between feeds

2.

Baby wants to breastfeed more than expected

3.

Baby appears hungry shortly after a breastfeed

4.

Baby guzzles down a bottle of milk following a breastfeed

5.

Baby is not gaining as much weight as expected

6.

Mother's breasts feel soft and don't leak as much



Remember, if your baby is alert, gaining weight each week and has at least six wet nappies in a 24-hour period, he's getting enough milk.



Print and keep for handy reference

kidspot parent exchange

How do we assess confidence?

- Self-efficacy theory has been used as a framework in a number of situations to determine perceived confidence



Definition

Self-Efficacy is a cognitive process
in which an individual evaluates their perceived ability
to perform a specific task or behaviour

(Bandura 1977)

Part II:
What is Breastfeeding Self-Efficacy

Definition

A mother's confidence in her perceived ability to breastfeed her infant



Breastfeeding Self-Efficacy Theory

(Dennis, 1999)

ANTECEDENTS

Sources of Information →

1. Performance Accomplishment
2. Vicarious Experience
3. Verbal Persuasion
4. Physiological/Affective States

BREASTFEEDING SELF-EFFICACY

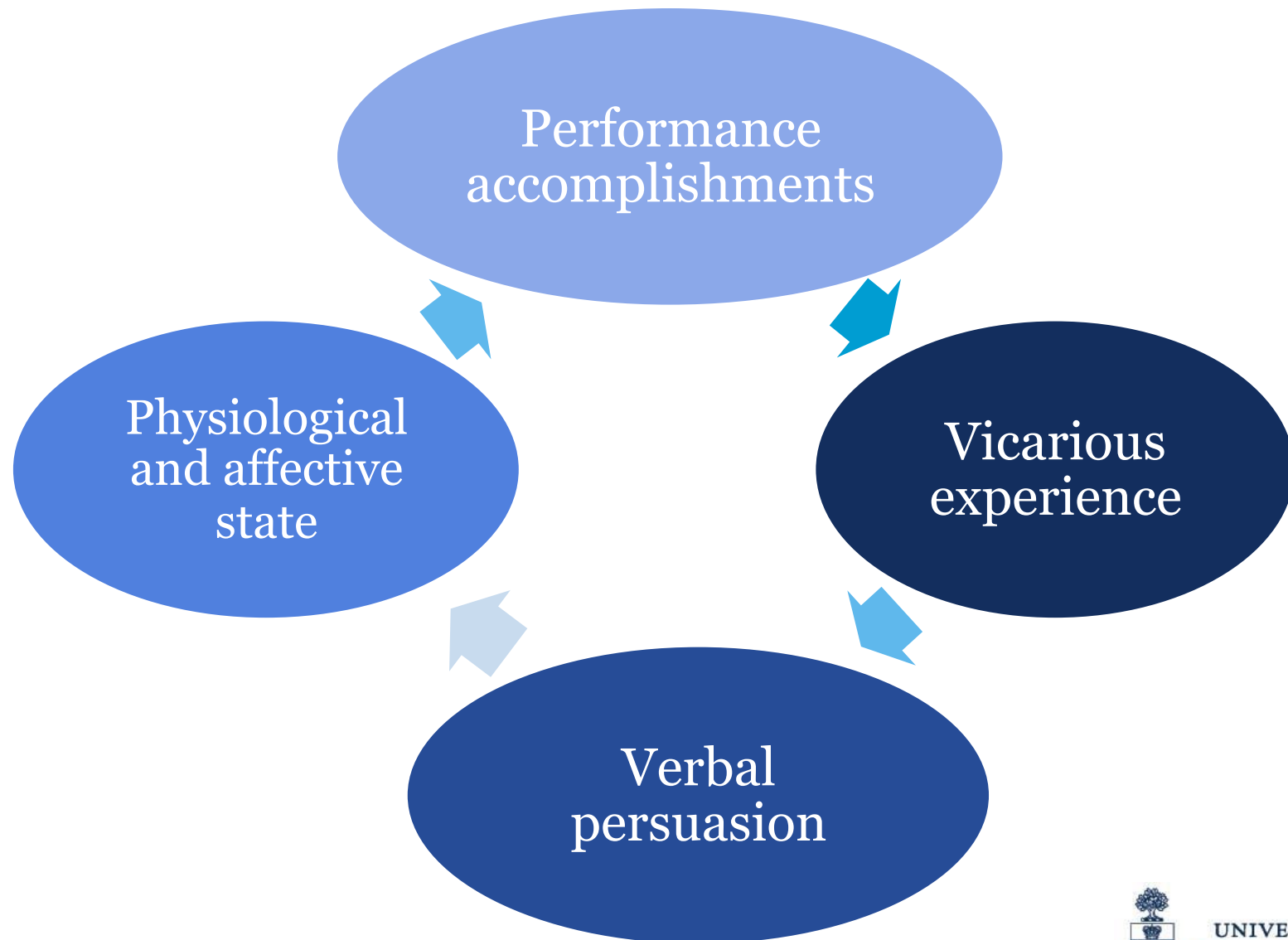
Confidence →

CONSEQUENCES

Response

1. Initiate Breastfeeding
2. Effort and Persistence
3. Thought Patterns
4. Emotional Reactions

Sources of Information for Breastfeeding Self-Efficacy



Performance Accomplishments

- Personal experiences are often the most immediate and powerful source of efficacy information
 - Successful performances = \uparrow self-efficacy
 - Repeated failures = \downarrow self-efficacy
- The value of a previous successful breastfeeding experience on breastfeeding outcomes has been clearly demonstrated

Breastfeeding Example

- A new mother who effortlessly succeeds at a perceived uncomplicated task, such as correctly positioning her infant to her breast, may not infer much about her breastfeeding ability, while failing at this simple task may have marked detrimental consequences on her self-efficacy
- Conversely, succeeding at an intricate task, such as properly latching her new infant to her breast, can increase her self-efficacy considerably



Individual Interpretations

- The effect of actual experience on self-efficacy is modified by individuals' interpretations of their performance and the desired outcome
- Attention to successful or improved aspects = \uparrow self-efficacy
- Attention to unsuccessful aspects = \downarrow self-efficacy

Vicarious Experience

- Other individuals' performances (e.g. live, recorded, or printed) provide a common source of information about skills and abilities
- This type of observational learning can have a powerful impact on perceived self-efficacy, especially in the absence of previous experience

Breastfeeding Example

- Women who have seen friends and family members successfully breastfeed are more likely to initiate breastfeeding and achieve their goals
- Women who have never seen an infant breastfed have reported that breastfeeding evokes feelings of awkwardness and embarrassment



Role Models

- The impact of observational learning is contingent on the attributes of the role models
- The most effective role models are similar to the target population yet more competent at the behaviour being modeled
- **Peer counsellors** who have successful breastfeeding experience have been used as positive role models to promote breastfeeding behaviours in new mothers

Verbal Persuasion

- Individuals often accept the appraisals of others as valid assessments of their own abilities
- Directing attention to the successful aspects of a breastfeeding session and praising new and existing breastfeeding skills = ↑ self-efficacy
- The more credible the individual providing verbal persuasion, the greater the potential to affect perceptions of self-efficacy



- Fathers' attitude and support for breastfeeding have consistently been found to positively or negatively affect:
 - Maternal infant feeding intentions
 - Breastfeeding initiation, duration, and exclusivity rates

The ever-growing research highlights the importance of fathers in improving breastfeeding outcomes

Physiological and Affective States

- Individuals make inferences about their abilities from emotional arousal and other physiologic cues experienced while enacting a behaviour or anticipating its enactment
 - Positive interpretations (excitement , satisfaction) = ↑ self-efficacy
 - Negative interpretations (pain, fatigue, anxiety) = ↓ self-efficacy
- These interpretations have been shown to influence self-efficacy and the breastfeeding process

Postpartum Depression and Breastfeeding



Dennis, C-L., & McQueen, K. (2009). The relationship between infant feeding outcomes and postpartum depression: A qualitative systematic review. *Pediatrics*, 123: e736-e751.

Consequences of Breastfeeding Self-efficacy

- Breastfeeding self-efficacy predicts:
 1. Whether a mother chooses to breastfeed
 2. How much effort she will expend and whether she will persevere until mastery is achieved
 3. Whether she will have self-enhancing or self-defeating thought patterns
 4. How she will respond emotionally to breastfeeding difficulties



1. Choice of Behaviour

- Individuals tend to:
 - evade tasks they believe surpass their abilities
 - pursue task they feel they are more competent to perform
- Self-efficacy influences individuals' behaviour attempts and the degree to which they set and commit goals

Breastfeeding Example

Breastfeeding Initiation

- Researchers found that women who were worried about their ability to breastfeed prenatally were more likely not to initiate breastfeeding
- Some new mothers chose to bottlefeed because they were “scared” to breastfeed



Breastfeeding Example

Breastfeeding Goals

- However, for those mothers who do initiate breastfeeding, goals are frequently established and have become predictors in the duration of breastfeeding
- It also appears that mother's commitment to their goals are essential to the maintenance of breastfeeding intentions

2. Effort Expenditure and Persistence

- A strong sense of self-efficacy encourages individuals to:
 - Engage themselves fully in the activity
 - Endure difficulties and setbacks
 - Increase their efforts if they fail



3. Thought Patterns

- Those individuals with a high level of self-efficacy have been found to possess performance enhancing thought patterns
- ↑ self-efficacy = maintains elevated expectations and promotes individuals to envision successful performances
- Low self-efficacy = promotes individuals to emphasize their perceived deficiencies and to visualize failure and self-defeat

Many mothers report
breastfeeding
difficulties



Successful
breastfeeding
mothers report the
importance of
being persistent

- Furthermore, a strong sense of self-efficacy promotes individuals to react to difficulties by thinking analytically rather than by responding emotionally
- Researchers discovered that mothers who were experiencing breastfeeding difficulties repeatedly found themselves involved in an “internal dialogue”
- Difficulties and doubts attracted a cognitive process associated with the possibility of stopping breastfeeding versus the challenge of personal commitment

4. Emotional Reactions

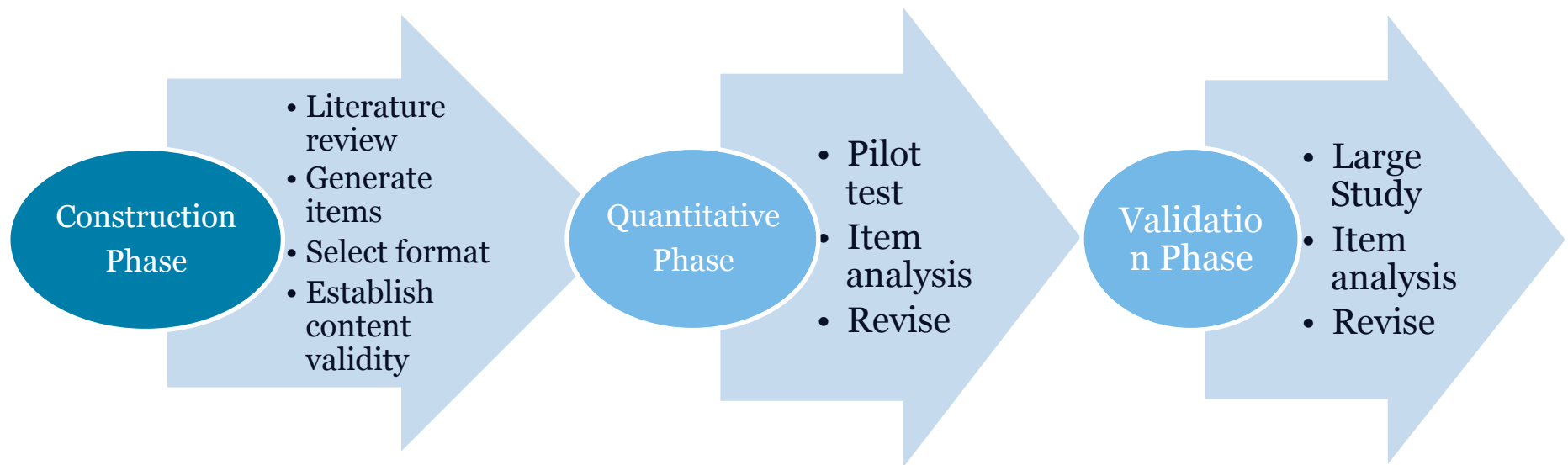
- The final influence of self-efficacy is on an individual's emotional reaction to new behaviours
- A task that may overwhelm the individual with ↓self-efficacy is seen as a challenge to those with a ↑self-efficacy

Breastfeeding Example

- Researchers have demonstrated the influence of emotional reactions, in combination with thought patterns, on breastfeeding
- Group I included mothers who considered themselves successful with breastfeeding while Group II included those who were dissatisfied
- Group I = positive thinkers, determined to succeed, difficulties as “normal”, problem-solvers, and continued to breastfeed
- Group II = focused on the negative aspects of breastfeeding, self-doubting, anxious, rigid in breastfeeding practices, and more likely to discontinue when confronted with difficulties

Part III:
Development of the
Breastfeeding Self-Efficacy Scale

Instrument Development



Initial Breastfeeding Self-Efficacy Scale (BSES)

- 43 items
- Stem for each item is “I can always...”
- 5-point Likert scale
- 1 = not at all confident
- 5 = always confident
- Item scores are summed
- Range from 43 to 215 with higher scores indicating higher levels of breastfeeding self-efficacy
- 3 subscales: technique, intrapersonal, support

Study 1

- Convenience sample of 130 breastfeeding mothers near Toronto, Canada
- Administered questionnaire in-hospital and then telephoned all mothers at 6 weeks postpartum
- In-hospital BSES scores predicted breastfeeding duration and exclusivity
- No relationship to maternal age, education, or income
- Positive relationship between previous breastfeeding experience and number of children
- Breastfeeding support subscale did not work and items were deleted

Study 2

- Population-based sample of 491 breastfeeding mothers near Vancouver, BC
- Administered questionnaire at 1, 4, and 8 weeks postpartum

Results

- 1-week BSES scores predicted breastfeeding duration and exclusivity
- No relationship to maternal age, education, or income
- Positive relationship between previous breastfeeding experience and number of children

BSES-Short Form

- 18 items were deleted from BSES to make BSES-SF
- 14 items
- No relationship to maternal age, education, income, marital status
- Positive relationship between previous breastfeeding experience and number of children

Clinical Implications

1. Identification tool to recognize which mothers require additional assistance
2. Assessment tool to individualize interventions
3. Evaluation tool to determine the efficacy of various supportive interventions and guide program development

BSES-SF Items

I can always determine that my baby is getting enough milk

I can always successfully cope with breastfeeding like I have with other challenging tasks

I can always breastfeed my baby without using formula as a supplement

I can always ensure that my baby is properly latched on for the whole feeding

I can always manage the breastfeeding situation to my satisfaction

I can always manage to breastfeed even if my baby is crying

I can always keep wanting to breastfeed

BSES-SF Items

I can always comfortably breastfeed with my family members present

I can always be satisfied with my breastfeeding experience

I can always deal with the fact that breastfeeding can be time consuming

I can always finish feeding my baby on one breast before switching to the other breast

I can always continue to breastfeed my baby for every feeding

I can always manage to keep up with my baby's breastfeeding demands

I can always tell when my baby is finished breastfeeding

Variables Predictive of BSES-SF Scores

1. Maternal education
2. Support from other women with children
3. Type of delivery
4. Satisfaction with labor pain relief
5. Satisfaction with postpartum care
6. Perceptions of breastfeeding progress
7. Infant feeding method as planned
8. Maternal anxiety

Important Clinical Question

Can breastfeeding self-efficacy be enhanced to improve clinical outcomes?

- Several studies → self-efficacy scores are predictive of behaviour changes:
 - Decreased smoking, increased exercise, improved nutrition, and safer sexual health practices
- Self-efficacy can be increased and sustained to improve varying outcomes:
 - Parenting skills, sun-safe behaviours, and chronic disease management

- Seven RCTs have specifically evaluated an intervention designed to increase self-efficacy based on Bandura's social cognitive theory
- Overall, effective interventions:
 - Based on 4 sources of self-efficacy information
 - Included face-to-face contact, written materials, and telephone follow-up

Summary of Evidence

- Growing research to suggest self-efficacy can be enhanced to change clinical outcomes
- Cochrane review → combined professional and lay support
- Need to target mothers based on modifiable risk factors
- Confidence → Breastfeeding Self-Efficacy Theory
- BSES-SF

Part V:
Clinical Implications
Using Breastfeeding Self-Efficacy to Improve
Breastfeeding Outcomes

Prenatal Care

1. Administer BSES-SF – review low and high scoring items
2. Review any previous breastfeeding experience
3. Assessing such experiences may enhance self-efficacy by defusing negative emotional responses, such as fear and anxiety, and by correcting misinformation
4. Provide verbal persuasion based on BSES-SF scores
5. Provide opportunities to talk to other mothers who have successfully breastfed

Common
Breastfeeding
Myths



Postnatal Care

- Mothers should be encouraged to begin breastfeeding immediately after birth and be given multiple opportunities to breastfeed during their hospital stay
 1. Promotes performance mastery
 2. A knowledgeable health professional should observe all initial breastfeeding attempts with a mother to ensure that negatively perceived aspects or outcomes of her performance do not undermine her perceptions of self-efficacy

- To aid health professionals in assessing new breastfeeding mothers, administer the BSES-SF
- Provides important information regarding the individualized needs of a new breastfeeding mother
 - Low scoring items could be used to identify areas to promote self-efficacy enhancing strategies
 - High scoring items could be identified as strengths warranting recognition and reinforcement

Self-Efficacy Enhancing Strategies

- Attention should be given to the successful or improved aspects of the breastfeeding performance
- Procedures done well should be targeted for positive reinforcement with decisions made about how to improve the breastfeeding performance in the future

During such a review, note whether the mother is experiencing:

- discomfort
 - anxiety
 - frustration
- sense of failure

Perinatal Mental Health

- Postpartum depression and anxiety
- Most frequent form of maternal morbidity following childbirth
- 50% of cases missed through informal surveillance
- Administer the Edinburgh Postnatal Depression Scale (EPDS)
- Especially if mother is experiencing ++ breastfeeding problems
- Very high risk to prematurely discontinue breastfeeding

Edinburgh Postnatal Depression Scale

In the past 7 days:

1. I have been able to laugh and see the funny side of things.
 - As much as I always could
 - Not quite so much now
 - Definitely not so much now
 - Not at all
2. I have looked forward with enjoyment to things.
 - As much as I ever did
 - Rather less than I used to
 - Definitely less than I used to
 - Hardly at all
3. I have blamed myself unnecessarily when things went wrong.
 - Yes, most of the time
 - Yes, some of the time
 - Not very often
 - No, never
4. I have been anxious or worried for no good reason.
 - No, not at all
 - Hardly ever
 - Yes, sometimes
 - Yes, very often
5. I have felt scared or panicky for no very good reason.
 - Yes, quite a lot
 - Yes, sometimes
 - No, not much
 - No, not at all
6. Things have been getting on top of me.
 - Yes, most of the time I haven't been able to cope at all
 - Yes, sometimes I haven't been coping as well as usual
 - No, most of the time I have coped quite well
 - No, I have been coping as well as ever
7. I have been so unhappy that I have had difficulty sleeping.
 - Yes, most of the time
 - Yes, sometimes
 - Not very often
 - No, not at all
8. I have felt sad or miserable.
 - Yes, most of the time
 - Yes, quite often
 - Not very often
 - No, not at all
9. I have been so unhappy that I have been crying.
 - Yes, most of the time
 - Yes, quite often
 - Only occasionally
 - No, never
10. The thought of harming myself has occurred to me.
 - Yes, quite often
 - Sometimes
 - Hardly ever
 - Never

0 to 3 points/item, 10+ is probable Postpartum Depression.

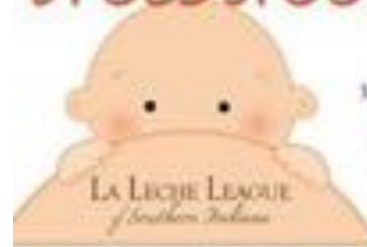
Encourage Breastfeeding Goals

Nervous about meeting your long-term breastfeeding goal? Break it down into smaller, more achievable goals. Take it one feeding at a time. You're doing a great job, Mama.

itsmorethanmilk.com
facebook.com/itsmorethanmilk



Afraid to reach a long-term breastfeeding goal?



set a more achievable short-term goal (like 6 weeks) when you reach that goal set another, then another, then another... you **can** do this mama!

If you have a breastfeeding question, please call or email. Or visit our www.la-leche-league.com Facebook page for advice & encouragement!

FREE telephone support
Monday 9:00 AM - 1:00 PM • July 9:00 AM - 4:00 PM • Call 812-467-5432



Performance Accomplishments

- Through the provision of anticipatory guidance, the tendency to experience anxiety, pain, and fatigue should be explicitly acknowledged and normalized while strategies for controlling these states should be taught and practiced
- For example, encouraging mothers to recall the positive aspects of their breastfeeding performances purposefully rather than to dwell solely on performance deficits may decrease anxiety and promote concomitant gains in their self-efficacy

DEAR NEW MOM:
FEEL LIKE YOUR BABY IS
BREASTFEEDING **ALL THE TIME?**
IT'S NORMAL!

**YOU'RE DOING
GREAT!**

XOXO,



Breastfeeding USA



- The confidence assessment could be used to make apparent to the mother the unobservable breastfeeding skills such as:
 - Envisioning successful performances
 - Thinking analytically to solve problems
 - Managing self-defeating thoughts
 - Persevering through difficulties

Vicarious Experience

- Promote videotapes that provide additional high-quality behavioural demonstrations both during and after the breastfeeding performance
- Excellent opportunities for efficacy enhancement through observational learning exist:
 - mother-to-mother support groups
 - breastfeeding clinics
 - public nursing areas



Peer Support

- New mothers can learn by observing breastfeeding and by listening to other mothers recount their breastfeeding experiences
- Develop a simple telephone peer support program where new mothers are matched with experienced mothers in the same community
- A link between mothers in the community and health professionals



Underlying Mechanisms of Peer Support

- Peer support can:
 - Increase social networks
 - Reinforce help-seeking behaviours
 - Decrease barriers to care
 - Encourage effective coping
 - Promote social comparisons
 - Increase self-efficacy
 - Aid self-esteem



(Dennis, 1999)

- The promotion, protection, and support of breastfeeding takes on a different type of engagement with the health system
- It is not a typical intervention
 - not a pharmaceutical product to be purchased or distributed
 - not a practice dependent on a facility or health provider

**Breastfeeding is a
social behaviour not a medical practice**

Social Marketing

- Social marketing is an approach used to develop activities aimed at changing or maintaining people's behaviour for the benefit of individuals and society as a whole



Based on Community-Based Social Marketing



- Social marketing has been established as an effective behavioural change model for a wide variety of public health issues, including breastfeeding
- Behaviour change **messages** should be based on **formative research** to identify **barriers and facilitators** to breastfeeding
- Mass media behaviour change campaigns can target all of society including mother-in-laws or families from diverse cultures

(WHO, Essential nutrition actions:

improving maternal, newborn, infant and young child health and nutrition, 2013)

Do something amazingly ordinary

My mate protects her baby from asthma and diabetes by doing the most ordinary thing in the world: breastfeeding.



onlynatural.org.uk
join our only natural facebook group

Breastfeeding.com
It's only natural



SHE'S NOT A CELEBRITY. SHE'S A STAR

24 oz. of breastmilk
=
50 minutes of vigorous jumping jacks
=
500 calories burned



BREASTFEEDING FACT No3:
You don't get "saggy boobs" from breastfeeding.

This fact is amongst many other great benefits associated with breastfeeding.

For more useful facts or help with breastfeeding speak to your midwife or health visitor.
Further information can be obtained on www.breastfeeding.nhs.uk or by ringing 0121 422 6603

Heart of Birmingham **NHS**
Leading Primary Care Trust



powered by **mama's** milk
Breastfeeding is the best feeding.

408.885.5950

uic

- Previous social marketing = informed mothers about the benefits of breastfeeding “Breast is Best”
- Resulted in increased initiation and duration rates
- Little movement with exclusive breastfeeding
- Poor job conveying the message that exclusive breastfeeding is better than ‘any’ breastfeeding
- Hong Kong trial to increase exclusive breastfeeding
- Negative trial
- 50% of participants did not want to exclusive breastfeeding

Summary

- While the majority of women initiate breastfeeding, many mothers prematurely discontinue due to difficulties they encounter rather than maternal choice
- Health professionals have identified high-risk breastfeeding women based on non-modifiable variables but to guide the development and evaluation of effective interventions, prediction of high-risk mothers should be based on modifiable variables
- One modifiable factor is breastfeeding confidence

- Mothers develop their self-efficacy expectations based on:
 1. past experiences and performances
 2. vicarious experience
 3. verbal persuasion, and
 4. their present physiological and emotional states
- Founded on these sources of information, health professionals can incorporate self-efficacy enhancing strategies into their general practice

- The Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF) has been developed to measure a mother's confidence in her ability to breastfeed and may be used as an assessment tool to (1) identify at-risk mothers and (2) individualize care
- The BSES-SF can also be used to evaluate health care interventions
- There are numerous research initiatives currently underway to advance the evidence underpinning breastfeeding self-efficacy

Thank You

Cindy-Lee Dennis, PhD

Professor and Canada Research Chair in Perinatal Community Health
University of Toronto

Shirley Brown Chair in Women's Mental Health
Women's College Research Institute