Prenatal Care and Education Tools: Making Them Work for Providers, Families and Clinics

1/29/2015 California Breastfeeding Summit
A presentation of the work of the Roseville Breastfeeding Taskforce

© 2015 Carol Thomason. I am happy to be here with you today! I have no conflicts of interest.
Who are we?
Kaiser Roseville’s Breastfeeding Taskforce, an interdisciplinary working group has four subcommittees: prenatal and outpatient care, intrapartum care, postpartum care, and ICN care.

Our Global Goals:
Implement Evidence-Based Care such as the Ten Steps and achieve a 95% exclusive breastfeeding rate at our hospital.
Where We Began

- 2006: Exclusive breastfeeding rate 32%
- Prenatal caregivers mostly did not want to discuss breastfeeding during prenatal care
- Knowledge-base of providers was low
- Many providers: up to 70 providers spread throughout three counties in seven clinics
The First Steps:

- Assuring providers that they *didn’t need to be extremely knowledgeable regarding breastfeeding* to provide needed, worthwhile breastfeeding support.
- Presenting breastfeeding talking points and a plan for providers for prenatal visits that was manageable and *time efficient*. This information was delivered in one 20-minute time-slot, which the majority of our providers attend. Talking points were distributed and *reinforcement* of this information was done during World Breastfeeding Week over the next three years.
Our current system of prenatal care explains reluctance to add more tasks during prenatal visits.

- Organization of care remains the same since the early 1900s
- Recently, number of visits decreased per W.H.O. recommendations. Typical number of visits now are 10, and usually 15 minutes (including charting time) is allotted per patient.

Photo: Kaiser Educational Photo Library
New topics are continually added: genetic testing, nutrition, weight gain, depression and domestic violence screening, toxins and drugs, birth control, and labor, to name a few.

Based on our current model of care, this leads to approximately 1 1/2 hours or less of face-to-face time per pregnancy.
The provider is extremely important. A UCLA study of 2000 women showed that of those encouraged by their providers to breastfeed, **75%** went on to breastfeed. Of those who were not, only **43%** breastfed.

- Women who were encouraged were **4x** more likely to breastfeed. \(p < 0.001\)
- Women with low income **3x** more likely to breastfeed.
- African American women **5x** more likely to breastfeed.
- Single women **11x** more likely to breastfeed.

**LU MC ET AL. 2001**
The Provider only needs to know the health advantages of breastfeeding, not HOW TO DO IT!

One Study showed that only 37% of patients were asked if they wanted to breastfeed. If they were advised to breastfeed, 61% breastfed, if they were not advised to breastfeed, 34% breastfed. (Sable, MR 1998)
A First Question Providers should ask: What have YOU heard about breastfeeding? Keep breastfeeding discussions as a conversation, not a yes/no decision.

- Avoid the question “Do you plan to breast or bottle feed?” – implies equality.
- If mother has issues or concerns about breastfeeding, address them and keep the decision open if possible.
- Talk through a mother’s decision to pump her milk and give bottles.
Our providers are very concerned about patient satisfaction. We encouraged providers to “pace” patients, or affirm, before “leading” or educating on breastfeeding.

- **AFFIRM CONCERNS**
  - Affirming concerns allows you to develop **rapport** and then you can educate. In hypnosis, this is called “Pacing and Leading.”
  - Affirming: “Many of my patients feel like that”.

- **EDUCATE**: give up-to-date information and correct any misconceptions

Photo: Kaiser Educational Photo Library
Be extremely familiar with and able to discuss the disadvantages of non-human milk for newborns as well as disadvantages of not breastfeeding for mothers. Know as many disadvantages/advantages as possible and customize what you say. Providers encouraged to access the homepage of Evergreen Perinatal Education. Their Article: “Outcomes of Breastfeeding…” gives up-to-date advantages of breastfeeding.
### Some Disadvantages for Mothers and Infants in Giving Non-Human Milk to the Infant

<table>
<thead>
<tr>
<th>MOTHERS</th>
<th>INFANTS</th>
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<tbody>
<tr>
<td>✦ Increased metabolic syndrome</td>
<td>✦ Increased cancer</td>
</tr>
<tr>
<td>✦ Increased premenopausal breast cancer</td>
<td>✦ Increased respiratory illnesses</td>
</tr>
<tr>
<td>✦ Increased osteoporosis</td>
<td>✦ Lower IQ</td>
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<tr>
<td>✦ Less deep sleep</td>
<td>✦ Heightens risk for asthma, atopic disease in at-risk infants</td>
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<tr>
<td>✦ Increased depression</td>
<td>✦ Less touch (up to 50% less)</td>
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<tr>
<td>✦ Increased Type II DM</td>
<td>✦ Increased obesity</td>
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<tr>
<td></td>
<td>✦ Increase DM 1 and DM 2</td>
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Assessment: The breast exam is a chance to ask “Are your breasts growing, or tender?”

If the answer is yes, it is a chance to encourage the mother:

“Your breasts are adding alveoli, or ‘milk factories.’ They are getting ready to breastfeed your baby.”

_Basically, if a mother has protuberant nipples, and breast changes, her chances of successful breastfeeding are GREAT, and she can be told this, and encouraged!_
Providers were taught to do a breastfeeding exam including a pinch test and to look for medical or physical issues that could lead to lactation difficulties. These were charted on the problem list and patients were given resources.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
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<tbody>
<tr>
<td>PCOS</td>
<td>2 of 3: excess androgen hormones, irregular or no ovulation, &amp; polycystic ovaries. Amenorrhea for any reason limits the sustained exposure for breast development.</td>
</tr>
<tr>
<td>Theca Lutein Cysts</td>
<td>Rarely an ovarian cyst called gestational ovarian theca lutein cyst will secrete 10-150 times normal testosterone. Once it drops after delivery (2-4 weeks), milk will come in.</td>
</tr>
<tr>
<td>Diabetes, Metabolic Syndrome</td>
<td>Lower prolactin levels in mothers with insulin-dependent diabetes. Metabolic syndrome has complex effects on progesterone, leptin, and prolactin, and can be co-morbid with obesity.</td>
</tr>
<tr>
<td>Hypothyroidism</td>
<td>Hypothyroidism negatively affects milk synthesis and hyperthyroidism does also though not as well studied. Some experts recommend tight control keeping TSH .5-2.5 for pregnancy and lactation.</td>
</tr>
</tbody>
</table>
**Some physical causes of delayed or diminished milk supply, Lactogenesis II**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Obesity</strong></td>
<td>Higher leptin with higher BMI may block insulin action and reduce progesterone. Diet and weight during adolescence seems to influence. Can be comorbid with insulin resistance.</td>
</tr>
<tr>
<td><strong>Pain</strong></td>
<td>Lowers oxytocin and prolactin. Psychic pain, PTSD also lowers these hormones.</td>
</tr>
<tr>
<td><strong>IGT (Insufficient Glandular Tissue)</strong></td>
<td>3 periods breast development: embryo, puberty, pregnancy. Abnormal embryonic development, abnormal hormonal milieu, or endocrine-disrupting chemicals can contribute to IGT. (Rudel et al. 2012)</td>
</tr>
<tr>
<td><strong>Injuries 4th Intercostal Nerve:</strong> Breast reduction, Breast augmentation, and Poland Syndrome</td>
<td>Question is not if can produce milk, but how much? Depends on amount of damage to ducts and nerve, and time elapsed as there is some glandular regeneration with menses and nerve growth.</td>
</tr>
</tbody>
</table>
“It was devastating. And it feels singular and lonely. There are far too few resources, studies, etc., on this subject. Why didn’t anyone in my 31 years look at my breasts and say “hey, you have similar characteristics of this condition. Let’s talk about it.”

Cassar-Uhl (2014)
Providers already knew that some of their patients had breastfeeding problems including “not enough milk.” Learning about physical and historical problems that can affect breastfeeding was very appreciated.

Providers became supportive of hand-expression after delivery to get a running start on milk supply:

Anything that could lead to a supply or lactation problem was added to the problem list, and providers easily learned talking points on hand-expression as a way to increase milk supply.

_Talking points regarding the merits of postpartum “hand-expression” were distributed to providers for World Breastfeeding Week, 2013._
Resources IGT

- [www.lowmilksupply.org](http://www.lowmilksupply.org) (accessed 1/6/2015)
- [www.mobimotherhood.org](http://www.mobimotherhood.org) (accessed 1/6/2015)

- Web Forum Discussions
  - Facebook Group: IGT and Low Milk Supply Support Group
  You will need to log in to your facebook account and request to join this group.
Books:

Cassar-Uhl (2014) *Finding Sufficiency: Breastfeeding with Insufficient Glandular Tissue*

Length since surgery: the longer the better

Moving the nipple with it’s blood supply important (pedicle technique)

Different techniques support varying success rates: 54% success rate in one study (success = no supplementation) –Hefter, et al., 2003. Remember that they CAN breastfeed! The question is: how much?

Discouragement from medical personnel a direct cause of failure.

Breastfeeding after reduction site: www.BFAR.org (last accessed 1/6/15)
The breastfeeding class and other classes the provider wants to encourage are handed out as a “prescription” where the provider simply checks off classes needed. Attending prenatal breastfeeding classes is evidence-based, and increases exclusive breastfeeding.

Providers in Northern California Kaisers already have routinely handed out the Birth Plan for a decade. Adding the infant feeding plan was intuitive and part of our 2014 World Breastfeeding Celebration.
Encouraging Prenatal Breastfeeding Classes is Evidence-Based

Discussing classes: Many moms cannot imagine that they need a breastfeeding class. “Isn’t breastfeeding natural?”

Studies on prenatal lactation classes show a positive relationship to breastfeeding success:

- Deshpande and Gazmararian (2000)
- Guise, J-M et al. (2003).
- Tender, et al. (2009): found infants of mothers who did not attend a prenatal breastfeeding class were 4.7x more likely to receive formula in the hospital.
32-40 Weeks: Discuss S-T-S, Rooming In, Night Feeds. These subjects are all in the Birth Plan and Feeding Plan which are returned by the patient at 32 or 36 weeks.

Some of our talking points: Skin-to-skin in the first hour:
Babies left skin-to-skin until the first feed is accomplished have higher average blood glucose, cry less, are warmer, and more likely to feed during the first hour.
### Summary of Visits & Actions to Support Breastfeeding by Trimester

<table>
<thead>
<tr>
<th>New OB Visit</th>
<th>Note Breastfeeding plans in problem list, list issues and actions. Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: intention &amp; keep dialogue open</td>
<td>Referrals to L.C./Websites/Books:</td>
</tr>
<tr>
<td>Note: Medical issues and physical issues in problem list</td>
<td><em>Defining Your Own Success</em> by Diana West (breastfeeding after breast reduction surgery); <em>The Breastfeeding Mother’s Guide to Making More Milk</em> by Diana West &amp; Lisa Marasco after reduction:</td>
</tr>
<tr>
<td>Note: previous lactation “failures”</td>
<td><a href="http://www.bfar.org">www.bfar.org</a></td>
</tr>
<tr>
<td></td>
<td>low milk: <a href="http://www.lowmilksupply.org">www.lowmilksupply.org</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.noteveryonecanbreastfeed.com">www.noteveryonecanbreastfeed.com</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.kellymom.com/bf/got-milk/supply-worries/insufficient-glandular-tissue/">www.kellymom.com/bf/got-milk/supply-worries/insufficient-glandular-tissue/</a></td>
</tr>
</tbody>
</table>

### 20-28 weeks
Classes: target women who would benefit from classes – previous lactation failure (self-defined), physical, endocrine or hormonal issues, primigravidas, women who haven’t nursed for 5 years. Discuss work plans and how that fits in with breastfeeding.

### 32-36 weeks
Discuss advantages skin-to-skin and *The Golden Hour*, as well as prioritizing frequent feeds or milk removal in the hospital on the postpartum ward. Introduce Birth Plan and Feeding Plan. (review it with patient). Discuss night feeds.

Under Breastfeeding plans on problem list, add “plans skin-to-skin until first feed accomplished”
Birth Plans started in the 1980s as a communication tool leading to greater satisfaction for mothers.

They were used as a tool to change the hospital.

They were also viewed as responsible for improving health. (Educational to parents)

Simkin (2007)
How do birth plans/feeding plans affect patients?

- Simkin: “After 25 years, women still want to be heard!”
- Birth Plans increase autonomy and decision-making.
- This type of decision-making is called “Shared decision-making”

Patients who have Birth Plans are more confident for labor/delivery and breastfeeding and more prepared regarding breastfeeding issues that can appear.

By reviewing feeding plan/birth plans with providers we can get clear about anything that is hazardous on the plan. Providers can then discuss any issues.

Yam et al. (2007) Kuo et al. (2010)
Birth Plans: Shared Decision-Making

- Shared decision-making leads to greater satisfaction.
- These feeding plan and birth plan tools can also help the provider know what topics are important to the patient.

Kuo et al. 2010, Moor et al 1995, Tumblin et al. 2001
~Infant Feeding Plan~

Page 1 has patient information, Page 2 has check box options →
Thus far, patient feedback has been excellent. Many patients comment that the options listed for interventions for babies for skin-to-skin care, (for example skin-to-skin for all babies regarding of feeding method or place of delivery), sleepy babies, and cluster feeds gave them lots of OPTIONS, EDUCATION, AND NEW IDEAS. THEY APPRECIATED THAT.
We have held steady at 91% exclusive breastfeeding rate for our last months in 2014.

We are closer to meeting many of the goals in the 10 Steps now. Much of this has to do with the prenatal work done by our innovative and hard-working physicians, midwives, and NPs at Kaiser Roseville, CA.
One Last Topic: Are there other models of care that provide excellent preparation for childbirth and parenthood? (including breastfeeding)
2001 Report: *Crossing the Quality Chasm*: Patient Centered Care:
About Partnerships, participatory care, and shared power and responsibility

2010 *Institute for Healthcare Improvement*: Needs and preferences of patients, shared decision making,
Contrasted with one-on-one care with an authority, CenteringPregnancy® has:

- Assessments in the same room with the other participants
- Facilitated discussions with shared power and responsibility of participants
- A focus on relationships and group support
- **COMMENT**: GENERATION X, and THE MILLENNIALS, who tend not to attend classes, can obtain support and education from this model without the authoritarian environment of traditional prenatal care and classes.
Improved Outcomes:

1. Less low birthweight in Non-Experimental and Quasi-Experimental studies.

2. Significant decrease in depressive symptoms, stress, and anxiety in Centering Pregnancy patients.

(Benediktsson et al. 2013)
Rates of preterm birth have remained relatively unchanged despite increased access to prenatal care programs.

Alternate models that address some of the myriad of social factors contributing to adverse outcomes are needed. (Benediktsson et al. 2013)

Experimental studies showed significant increase gestational age at birth with CenteringPregnancy® care (Ickovics, 2007)
I believe this model of care is hopeful and transformative.

The group is coming together and nurturing themselves.

This was such a meaningful and positive experience for me. I really had fun.

This is the midwifery model of care.

This offers new skills to the provider and offering this benefits ALL patients, not just patients in the Centering care.
We got to know patients personally as people, not as patients.

We could see that women get to know and support each other.

We shared ownership of care, and experienced joy and satisfaction.

This type of care is important for residents to experience. (McNeil, D. et al, 2013)
The **OPTIMALITY INDEX** was used to assess the similarity of our matched cohorts, and to compare the optimality of their obstetrical care and outcomes.

Optimality Index-US (OI-US) is a unique instrument that shifts the focus of inquiry from (rare) adverse events, to evidence-based, best-possible or optimal events in the process of care.

OI-US looks at 40 items in 4 perinatal domains: present pregnancy, parturition, the mother and the neonate.

*Murphy PA, Fullerton JT (2001)*
Breastfeeding results: Kaiser Santa Rosa Centering versus Traditional Care: Matched Cohorts (N=10)

<table>
<thead>
<tr>
<th>Result</th>
<th>Centering Care</th>
<th>Traditional Prenatal Care</th>
</tr>
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<tbody>
<tr>
<td>Started Exclusive Breastfeeding</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Average Duration Exclusive Breastfeeding</td>
<td>6.3 months</td>
<td>3.7 months</td>
</tr>
<tr>
<td>Age Introduced Formula</td>
<td>60% never used</td>
<td>20% never used</td>
</tr>
<tr>
<td></td>
<td>40% 7.5 months</td>
<td>80% 2.6 months</td>
</tr>
<tr>
<td>Age Stopped Breastfeeding</td>
<td>80% still breastfeeding</td>
<td>20% still breastfeeding</td>
</tr>
<tr>
<td></td>
<td>20%: (n=1): 10 months</td>
<td>Average: 6.3 months</td>
</tr>
</tbody>
</table>
Larger Studies: Centering and Breastfeeding

Quasi-Experimental:
- Grady and Bloom (2004) increased breastfeeding at hospital discharge
  - 46% vs. 28%
- Klima et al. (2009) 59% vs. 44% and exclusive breastfeeding: 44% vs. 31%
- Robertson et al. (2003) no difference

Experimental:
Ickovics, et al. (2007) 66.5% vs. 54.6% breastfeeding at discharge
Antepartum care is a time that sets the stage.

Are we giving the most efficacious, quality care, that improves the health comprehensively of both patients, and providers?

Does our care help our patients become the best parents that they can be?
Each visit is a chance to encourage breastfeeding, work with difficulties, educate, and share resources.

“Breastfeeding is a Confidence Game” — Dr. Derrick Jelliffee
World Breastfeeding Hero
That’s all folks!

- Thanks!
- Questions?
- Comments?