The Role of Physicians in the BFHI

Oklahoma Baby-Friendly Symposium

Presented by
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Disclosure

• I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial services discussed in this CME activity.

• I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.
Objectives

1. Describe how physicians affect system level changes required for hospitals to become Baby-Friendly designated
2. Delineate the role physicians plan in each of the Ten Steps to Successful Breastfeeding
3. Identify common barriers for physicians as hospitals adopt the Ten Steps
Physicians are the Gatekeepers of Health Care
Engaging Physicians as a Challenge

• If physicians are not properly educated they undermine process and outcome measures
• “I won’t do that” examine babies in the rooms
• “There’s nothing wrong with giving a supplement if it avoids hyperbilirubinemia or hypoglycemia”
Engaging Physicians as an Opportunity

• Your adversaries can become your best allies
• You need them for change and to become Baby-Friendly
• Making a Difference Matters!
• Seeing the greater good as a motivation to change, rather than carrots or sticks
• Being part of a beneficial process bigger than oneself

Cooper Medical School of Rowan University
Know Where They are Coming From

Graph data modified from the Mother’s Survey, Ross Products Division of Abbott, and CDC NIS
Breastfeeding education over 3 years of residency (n = 102)

Pediatricians’ Attitudes

Table 5. Pediatricians’ Opinions on Issues of Breastfeeding Promotion and Benefits, 2004 vs 1995 (Percentage of Respondents)

<table>
<thead>
<tr>
<th>Opinion (％ Agree)</th>
<th>2004 (n=669)</th>
<th>1995 (n=817)</th>
<th>AOR (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost any mother can be successful at breastfeeding if she keeps trying</td>
<td>62.2</td>
<td>69.2</td>
<td>0.75 (0.59-0.95)</td>
</tr>
<tr>
<td>Breastfeeding and formula feeding are equally acceptable methods for feeding infants</td>
<td>45.1</td>
<td>45.0</td>
<td>1.02 (0.81-1.28)</td>
</tr>
<tr>
<td>Benefits of breastfeeding outweigh the difficulties or inconvenience mothers may encounter</td>
<td>58.0</td>
<td>68.2</td>
<td>0.60 (0.47-0.76)</td>
</tr>
<tr>
<td>In the long run, formula-fed babies are just as healthy as breastfed babies</td>
<td>26.0</td>
<td>34.5</td>
<td>0.70 (0.55-0.90)</td>
</tr>
<tr>
<td>Advice from family and friends is the most important influence in the decision to breastfeed</td>
<td>55.1</td>
<td>72.6</td>
<td>0.50 (0.40-0.64)</td>
</tr>
<tr>
<td>Pediatricians have little influence on whether mothers initiate breastfeeding</td>
<td>5.8</td>
<td>18.2</td>
<td>0.27 (0.18-0.40)</td>
</tr>
</tbody>
</table>

Pediatricians’ Confidence and Practice Patterns

Table 6. Breastfeeding Management and Opinions on Breastfeeding Promotion Based on Personal Experience\(^a\) (Percentage of Respondents)

<table>
<thead>
<tr>
<th>Breastfeeding Management in 2004(^b)</th>
<th>Personal Experience (n=423)</th>
<th>No Experience (n=236)</th>
<th>AOR (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident or very confident</td>
<td>95.0</td>
<td>72.0</td>
<td>6.01 (3.40-10.64)</td>
</tr>
<tr>
<td>Adequately address mother’s concerns about breastfeeding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥5 Times in the last year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage breastfeeding problems</td>
<td>89.0</td>
<td>63.5</td>
<td>3.54 (2.28-5.50)</td>
</tr>
<tr>
<td>Observed breastfeeding</td>
<td>66.2</td>
<td>53.4</td>
<td>1.97 (1.36-2.86)</td>
</tr>
<tr>
<td>Counseled an expectant or new mother about infant feeding choices</td>
<td>86.5</td>
<td>72.0</td>
<td>2.00 (1.29-3.13)</td>
</tr>
<tr>
<td>Taught a new mother breastfeeding techniques</td>
<td>46.8</td>
<td>20.4</td>
<td>3.98 (2.63-6.03)</td>
</tr>
<tr>
<td>Counseled mothers about breastfeeding problems</td>
<td>66.0</td>
<td>38.4</td>
<td>2.76 (1.93-3.96)</td>
</tr>
<tr>
<td>Asked a breastfeeding mother whether she is using herbal agents</td>
<td>24.2</td>
<td>16.3</td>
<td>1.62 (1.05-2.52)</td>
</tr>
<tr>
<td>Considered cultural beliefs before observing breastfeeding</td>
<td>29.3</td>
<td>19.4</td>
<td>1.57 (1.04-2.37)</td>
</tr>
<tr>
<td>Taught a new mother how to use a breast pump</td>
<td>10.4</td>
<td>2.1</td>
<td>6.07 (2.29-16.07)</td>
</tr>
</tbody>
</table>

Traditional vs. Competency-based Education

Competency-based Education

• **Health System needs**
  – Need to improve physician knowledge, skills and attitudes to support exclusive breastfeeding

• **Competencies**
  – Skills in taking history, doing assessments and counseling

• **Outcomes**
  – Increased Exclusive Breastfeeding

• **Assessment of Outcomes**
  – measure rates

• **Assessment of Competencies**
  – Tools
  – Direct observation, OSCE

• **Develop curriculum**
Training Residents

Studied 14 programs; >20 residents per program from Pediatrics, OB/GYN, FM

http://www.aap.org/breastfeeding/curriculum/

2-3 times more likely to have greater knowledge, confidence and improved practice patterns

Residency Curriculum

Exclusive Breastfeeding

Before and After Study

BF 6 mo

Intervention
Control
Intervention
Control

%

Before
After

* p < 0.01

Feldman-Winter et al, Pediatrics 2010; 126:289-297
Health Education Theory: Diffusion of Innovation

Team of Trainers

Residents become Innovators

OB/GYN, FM, Pediatrics

Innovators Impact Health Care System: Knowledge, PP, Confidence

Change Behavior

* Or any curricula

AAP Curriculum

Faculty Development

EBF
Getting Physician Buy-in

• Treat physician like they would treat a patient-listen and emphasize, build trust and respect
• Solicit input, use focus groups
• Respect physicians’ time
• Make it quantitative, docs like numbers
• Link the work to performance and quality
• Communicate frequently and then some
• Address skepticism head on
• Reward and recognize contributions

Wenneker and Blattner 2005
Peer to Peer Partnership for Physician Engagement

• Docs teach docs
  – We speak a different language

• Walk the talk
  – Model what docs can do to improve care

• Spread the news
  – Docs love good PR
  – Celebrate accomplishments of those who partner
  – Encourage all to enlist
Pediatricians and the BFHI

• AAP has endorsed the Ten Steps to Successful Breastfeeding (not Baby-Friendly per se)
  – http://www2.aap.org/breastfeeding/healthprofessionaisresourceguide.html

• The AAP has endorsed the United States Breastfeeding Committee’s Core Competencies
  – http://www.usbreastfeeding.org/Portals/0/Publications/Core-Competencies-2010-rev.pdf
STEP 1

Have an *infant feeding* policy that is routinely communicated to all health care staff.
The Policy and Protocols

• The Ten Steps
• The Code of Marketing
  – How will physicians implement the code?
• Policy for supplementation
  – Documentation
  – Physician order
• Policy for hypoglycemia and hyperbilirubinemia
  – Follow evidence based guidelines and algorithms
The Code

- Breastmilk Substitutes (BMS)-medically necessary; requested after informed consent documented.
- Prohibits marketing of BMS, complementary foods, bottles and teats
- Educational materials free of marketing, and no group education on preparation of formula
- Education on BMS includes hazards of preparation that are eliminated by breastfeeding
No More Sample Packs (Consider Office)

Show of hands:
Are you giving new moms formula sample packs?
The Locked Cabinet

Infant Formula

Show of hands: Do you track formula use in hospital?

Cooper Medical School of Rowan University
STEP 2

Train all health care staff in the skills necessary to implement the policy.

• 20 hours including 5 supervised for staff
• 15 lessons
• 4 competencies
• 3 hours for physicians and APNs but need to have same knowledge and skills
Competencies

• Verify competencies in 5 hours of supervised education

• 4 competencies listed by BF-USA:
  1 - Communicating with pregnant and postpartum women about infant feeding
  2 - Observing and assisting with breastfeeding
  3 - Teaching hand expression and safe storage of milk
  4 - Teaching safe formula preparation and feeding
Skills Fairs

• Stations
  ➢ Assess breastfeeding dyad
  ➢ Maintain milk supply
  ➢ Use of pumps, shields, other tools
  ➢ Solve common problems

• Interdisciplinary

• Volunteers
STEP 3
Inform all pregnant women about the benefits and management

• Use opportunities at well child visits for pregnant mothers to reinforce prenatal education

• Mothers need to know:
  – List of benefits
  – Basic management - position and latch, feeding on-cue
  – Importance of skin-to-skin contact
  – Rooming-in
  – Risks of supplements while breastfeeding in the first 6 months.
STEP 4
Help mothers initiate breastfeeding within one hour of birth.

Now interpreted as:
“Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour and encourage mothers to recognize when their babies are ready to breastfeed, offering help if needed.”

This step applies to all babies, regardless of feeding method.
Breastfeeding in the DR/OR

• Uninterrupted skin-to-skin within 5 minutes for at least the first hour after life.
• AHRQ: Level IIa evidence; good
• AAP Policy: Initiate in the first hour; keep newborn and mother together in recovery and after; avoid unnecessary oral suctioning.
• Delay procedures until after first hour

Overcoming Barriers

- Gowns without snaps
- Eyes and thighs
- Staffing to monitor
- Baby’s weight
- C-Sections
- Fear

*Photos courtesy of Cindy Curtis And Jack Newman*
## Duration of Skin-to-Skin Matters

<table>
<thead>
<tr>
<th>Variable</th>
<th>STS ≤ 60 min</th>
<th>STS &gt; 60 min</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=18</td>
<td>N=61</td>
<td></td>
</tr>
<tr>
<td>STS Duration</td>
<td>51.1 ± 13.5</td>
<td>81.0 ± 14.9</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Adjusted mean salivary cortisol (ug/Dl)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 min</td>
<td>5.03 ± 0.46</td>
<td>3.94 ± 0.24</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>120 min</td>
<td>2.71 ± 0.40</td>
<td>2.08 ± 0.21</td>
<td></td>
</tr>
</tbody>
</table>

* Adjusted for time until STS started, cortisol at 1 min, umbilical artery PH, mode of delivery, condition of amniotic fluid, birth weight, length of first and second stage of labor (minutes)

So...what’s the problem with immediate and continued STS?
Hospitals should balance skin-to-skin contact with safe sleep policies
By Jay Goldsmith, MD, FAAP

- Sudden Postnatal Death
- Mothers sleepy
- Discontinuous observation
- Medications problematic
  - MgSO4
  - Narcotics
- Bed sharing denounced
Sudden Unexpected Postnatal Collapse (SUPC)

- Sudden collapse in previously vigorous spontaneously breathing newborn with five minute APGAR > 8
- Gestational age > 35 weeks
- Incidence 2.6-38/100,000
- One third occur in first 2 hours, 1/3 between 2 and 24 hours and final 1/3 between 1-7 days of life
- Another study suggests 73% occur in first 2 hours
Go Back to the Step 4 Algorithm

1. Delivery of newborn (not just head)
2. Dry and stimulate for first breath/cry
3. Place skin to skin with cord attached (with option to milk cord), clamp after 1 minute or after placenta delivered
4. Continue to dry entire newborn except hands
5. Cover head and place pre-warmed blankets to cover body of baby on moms chest
6. Assess 1 and 5 minute Apgar
7. Replace wet blankets with dry warm blankets
8. +/- Cap for head
9. Assist and support to breastfeed
10. Monitor continuously
Safe Positioning for Skin to Skin Contact

- Face can be seen
- Head is in “sniffing” position
- Nose and mouth not covered
- Head turned to one side
- Neck straight not bent
- Shoulders and chest face mom
- Legs are flexed
- Covered back with blankets
- Monitor dyad
- When moms want to sleep baby is placed in bassinet or with another support person
STEP 5
Show mothers how to breastfeed and how to maintain lactation even if they are separated from their infants.

1) The importance of exclusive breastfeeding
2) How to maintain lactation for exclusive breastfeeding for about 6 months
3) Criteria to assess if the baby is getting enough breast milk
4) How to express, handle, and store breast milk, including manual expression
5) How to sustain lactation if the mother is separated from her infant or will not be exclusively breastfeeding after discharge
Know How to Teach Hand Expression

http://newborns.stanford.edu/Breastfeeding/HandExpression.html
Increased Milk Volume with HE followed by HOM

J. Morton et al. J Perinatology 2009
STEP 6

Give newborn breastfed infants no food or drink other than breastmilk, unless medically indicated.

- Understand physiology and define medical indications to supplement
- Determine if nurse and/or physician needs to order supplements with formula
- Revise protocols
Over-feeding in early life

• Exclusive breastfeeding:
  • 15-30cc day 1
  • 30-150cc day 2

• Exclusive formula feeding:
  • 60-90 cc every 2 to 3 hours each day; approx 24 ounces (720cc)
Weight Loss in an Inner City Baby-Friendly Hospital

- Average infant weight loss: 4.9% (range 0.00%-9.9%)
- Weight loss >7% 20% (23/118)
- Weight loss >8% 7% (8/118)
- Weight loss >10% 0 infants

Infant weight loss nadir was significantly associated with feeding category (p=0.00)

58.5% reached weight loss nadir by 2 days after birth.
What about jaundice?
Why do breastfeeding infants become jaundiced?

- Breastfed infants have prolonged period of physiologic jaundice
- Difficulties establishing breastfeeding will increase the likelihood of hyperbilirubinemia, not physiologic
- “starvation jaundice”
- Distinguish between early non-breastfeeding jaundice vs. breastmilk jaundice
Revise Approach to Jaundice

- Establish new protocols
- Buy-in to maintain exclusive BF
- Consistent approach

Screening and Management of Postnatal Glucose Homeostasis in Late Preterm and Term SGA, IDM/LGA Infants

((LPT) infants 34 – 36\textsuperscript{6/7} weeks and SGA (screen 0-24 hrs); IDM and LGA ≥34 weeks (screen 0-12 hrs))

**Symptomatic and <40 mg/dL → IV glucose**

**ASYMPTOMATIC**

<table>
<thead>
<tr>
<th>Birth to 4 hours of age</th>
<th>4 to 24 hours of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INITIAL FEED WITHIN 1 hour</strong></td>
<td><strong>Continue feeds q 2-3 hours</strong></td>
</tr>
<tr>
<td>Screen glucose 30 minutes after 1\textsuperscript{st} feed</td>
<td>Screen glucose prior to each feed</td>
</tr>
<tr>
<td>Initial screen &lt;25 mg/dL</td>
<td>Screen &lt;35 mg/dL</td>
</tr>
<tr>
<td>Feed and check in 1 hour</td>
<td>Feed and check in 1 hour</td>
</tr>
<tr>
<td>&lt;25 mg/dL</td>
<td>&lt;35 mg/dL</td>
</tr>
<tr>
<td>IV glucose*</td>
<td>IV glucose*</td>
</tr>
<tr>
<td>25–40 mg/dL</td>
<td>35 – 45 mg/dL</td>
</tr>
<tr>
<td>Refeed/IV glucose* as needed</td>
<td>Refeed/IV glucose* as needed</td>
</tr>
</tbody>
</table>

**Target glucose screen ≥45 mg/dL prior to routine feeds**

* Glucose dose = 200 mg/kg (dextrose 10% at 2 mL/kg) and/or IV infusion at 5–8 mg/kg per min (80–100 mL/kg per d). Achieve plasma glucose level of 40-50 mg/dL.

Symptoms of hypoglycemia include: Irritability, tremors, jitteriness, exaggerated Moro reflex, high-pitched cry, seizures, lethargy, floppiness, cyanosis, apnea, poor feeding.

AAP Committee on Fetus and Newborn. Pediatrics. 127(3); 2011:575 -579
STEP 7
Practice rooming-in - allow mothers and infants to remain together twenty-four hours a day.
Continuous rooming-in

- Guideline: separation of mothers and infants will occur only if medically indicated and justification is documented in the chart.
- Pediatricians perform normal newborn exams in the room with the mother
- Patient and family centered care
- Family centered teaching rounds

STEP 8
Encourage unrestricted breastfeeding

• Mothers are taught to recognize their infant’s feeding cues and feed on-demand.

• No restrictions on frequency or duration of breastfeeding.
  – Step 7 facilitates Step 8
  – On-demand or cue-based
  – **NOT every 2 to 3 hours!!**
  – AAP recommends 8-12 times per day (tally feeds)
  – **NOT for 10 or 15 minutes each side**

  “8 or more in 24”
STEP 9
Give no pacifiers or artificial nipples to breastfeeding infants

• No pacifiers given unless medically necessary
• Educate about why not
• Explain relationship of pacifiers and SIDS protection, AAP statement to introduce after breastfeeding is established at about 1 month
• Families may provide own pacifiers if they insist on using one but document education
Why No Bottles?

• Sensitive window of learning to suckle
• Artificial nipple or bottle supplementation to breastfeeding newborns may lead to a phenomenon known as ‘nipple confusion’ that may interfere with successful breastfeeding
• The strongest evidence is from premature newborns
Origins of Nipple Confusion

• The notion of nipple confusion was initially introduced in the WHO/United Nations Children’s Fund 1989 statement, which later became the basis for the United Nations Children’s Fund “Baby-friendly hospital initiative” and the “Ten steps to successful breastfeeding”

• Artificial teats may confuse the infant’s oral response because less work is needed to suck on an artificial teat, which might eventually decrease the child’s desire to suck on the breast
Where’s the Evidence?

• Canadian Study examined hcp’s opinions with two questions:
  - “Do you think that giving frequent bottle feeds leads to the ‘nipple confusion’ phenomenon?” and “Do you think that giving even one bottle feed leads to the ‘nipple confusion’ phenomenon?”
  - Bottle feeding supplements was common, NGT feeding common in the level II nursery and among alternative devices used the most common were cup and finger feeding

Beliefs about Method Used

• Only 15.0% of the level II nurses agreed that frequent bottle feeds lead to the nipple confusion phenomenon
• Compared with 44.4% of the postpartum nurses and 56.2% of the pediatricians
• Findings demonstrated considerable variation in the practices and beliefs surrounding supplementation methods

The RCT

- Randomized clinical trial of pacifier use and bottle-feeding or cup feeding and their effect on breastfeeding.
- Supplemental feedings, regardless of method (cup or bottle), had a detrimental effect on breastfeeding duration.
- There were no differences in cup versus bottle groups for breastfeeding duration.
- Effects were modified by the number of supplements.
- Among infants delivered by cesarean, cup feeding significantly prolonged exclusive, full, and overall breastfeeding duration.

Effects in the LPI

- Effect of Cup Feeding and Bottle Feeding on Breastfeeding in Late Preterm Infants
- Infants randomized to cup vs. bottle more likely to be exclusively breastfed, but no difference in overall breastfeeding and no difference in LOS

<table>
<thead>
<tr>
<th></th>
<th>Bottle Feeding (n = 268), No. (%)</th>
<th>Cup Feeding (n = 254), No. (%)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any breastfeeding at discharge</td>
<td>244 (91)</td>
<td>252 (99)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Any breastfeeding at 3 months</td>
<td>221 (82)</td>
<td>223 (88)</td>
<td>.088</td>
</tr>
<tr>
<td>Any breastfeeding at 6 months</td>
<td>158 (59)</td>
<td>176 (69)</td>
<td>.015</td>
</tr>
<tr>
<td>Exclusive breastfeeding at discharge</td>
<td>123 (46)</td>
<td>184 (72)</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Exclusive breastfeeding at 3 months</td>
<td>126 (47)</td>
<td>196 (77)</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Exclusive breastfeeding at 6 months</td>
<td>113 (42)</td>
<td>146 (57)</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Some Practical Issues

- Babies will likely consume less volume if they are not bottle fed
- You can deliver small aliquots via syringe feeding
- Consider expressed mother’s milk since you are not expecting large volumes
STEP 10

Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or birthing center.

Pediatricians can identify and collaborate with Community partners, establish mechanism for Referrals and coordination of care.
Conclusions

• The BFHI is evidence based and helps to increase exclusive and overall breastfeeding
• Physicians are necessary for implementation of the BFHI
• Interdisciplinary care models works best
• Collaborate in key!
“Well done is better than well said.” - Benjamin Franklin