Intrapartum Nurse's Guide to Protecting, Promoting and Supporting Breastfeeding: Another Ten Steps

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The intrapartum period is a crucial time for implementing steps to protect, promote, and support breastfeeding. Labor and delivery nurses may be more concerned with the immediate safety of the mother and fetus than with future implications for breastfeeding. The purpose of this article is to review the potential effects that prenatal education and intrapartum practices and interventions have on lactation, and to encourage nurses to thoughtfully consider these effects in their clinical practices. By implementing these recommendations they can better educate the mother, empower her to make informed choices, avoid unnecessary intrusion into the normal birth process, and maximize the potential for meeting her breastfeeding goals.

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The "Ten Steps to Successful Breastfeeding" issued by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) (1989) are evidence-based, have endured for over 20 years, and have been the basis for many national and international breastfeeding promotional campaigns. These steps largely exclude the prenatal and intrapartum period, which is a crucial time for implementing steps to protect, promote, and support breastfeeding. Nurses functioning in this often stressful environment may be more concerned with the immediate safety of the mother and fetus than with future implications for breastfeeding. The purpose of this article is to review potential effects intrapartum practices have on lactation, and to encourage nurses to thoughtfully consider these effects in their clinical practices. By implementing these recommendations nurses can better educate the mother, empower informed choices, avoid unnecessary intrusion into the normal birth process, and maximize the potential for meeting her breastfeeding goals.

Case Study

Mary, pregnant for the first time and eager to breastfeed her first child, presented at term to the Labor and Delivery (L&D) unit in labor. The nurse's first interventions were to put her to bed, place her on the electronic fetal monitor (EFM), and perform a vaginal exam. She was partially effaced and dilated with an early-labor contraction pattern. When her contractions slowed, her bag of water was broken to augment her labor. Her contractions increased in frequency and intensity, and she was offered an epidural. The epidural precipitated a drop in blood pressure and deceleration of the fetal heart rate (FHR), both of which recovered after the bolus of intravenous (IV) fluid. Because of the FHR deceleration, internal EFM was initiated. After the epidural, her contractions decreased in intensity, and a pitocin augmentation was begun.

She assumed an active-labor pattern, but with slow dilatation and effacement. When the physician came, Mary was told that after a trial of labor with failure to progress, and because her membranes had been ruptured for some time, a cesarean section was recommended to avoid the likelihood of infection. After the cesarean delivery, the baby was taken to the nursery where he remained for several hours and was given formula due to a low blood sugar. The baby was sleepy and showed no interest in the first breastfeeding.

In spite of regular feedings, Mary's milk was late coming in and she gave supplemental formula after each feeding. Her milk supply continued to decrease and she quit breastfeeding at two weeks. Mary was disappointed and depressed because she had "failed" to achieve her goal of breastfeeding her baby. What perinatal interventions put Mary at risk for lactation "failure"? What nursing interventions or anticipatory guidance could have protected, promoted, and supported her intention to breastfeed?

Care of the Laboring Mother

The L&D nurse is in a strategic position to assess the mother's knowledge and preparation for labor, birth, and parenting, and to ensure that the mother's wishes and goals are communicated to the rest of the staff. Her role is vital to ensure that informed consent is obtained

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for the choices the mother will make during this intrapartal period (Lally et al., 2008). Three essential admission assessments related to informed consent are the mother's knowledge of the benefits of breastfeeding and risks of formula feeding; the impact of analgesia and anesthesia on labor, the infant, and the lactation process; and the knowledge of and experience with non-pharmacologic comfort measures to minimize the use and impact of pharmacologic measures. The Academy of Breastfeeding Medicine (ABM) recommends that these topics be included in prenatal education (ABM, 2008).

Table 1. Another Ten Steps for Intrapartum Nurses

1. Assess the mother's knowledge of the benefits of of breastfeeding and risks of formula feeding to ensure informed consent for feeding choice.
2. Assess the mother's knowledge of the impact analgesia and anesthesia has on labor, the infant, and the lactation process.
3. Assess the mother's knowledge of, experience with, and motivation for the use of non-pharmacologic comfort measures to customize teaching and labor support to avoid or minimize pharmacologic measures.
4. Encourage ambulation for as long as the laboring woman is comfortable.
5. Discourage the recumbent position and suggest frequent position changes for mothers confined to bed.
6. Encourage oral hydration and nourishment, unless contraindicated, and carefully monitor fluid intake and output.
7. Place baby immediately on mother's chest, and leave the baby skin-to-skin to encourage bonding, breast-seeking, and breastfeeding behaviors.
8. Delay routine eye prophylaxis and vitamin K injections until after the first breastfeeding is accomplished.
9. Delay the baby bath until after the first breastfeeding.
10. Initiate breast pumping within the first hour if the infant is transferred to the NICU without the opportunity for skin-to-skin contact and breastfeeding.

L&D nurses should collaborate with childbirth educators in their area to ensure continuity of care on these vital issues, which require time for discussion and assimilation, and therefore cannot ideally be initiated upon admission to labor. With such collaboration, the L&D nurse need only to assess the patient's knowledge and preferences in order to ensure informed consent. If the patient has not participated in a childbirth education program, the nurse is in a position to assess knowledge, and provide as much information to bridge any knowledge gap as the patient's stage of labor and interest allows.

Benefits of Breastfeeding and Risks of Formula Feeding

The first essential assessment is the mother's knowledge of the benefits of breastfeeding and risks of formula feeding. Breastfeeding decreases the incidence of infant and maternal acute and chronic disease, protects the infant from hazards associated with formula feeding, and significantly decreases the cost of infant feeding and healthcare (Spatz & Lessen, 2011; Walker, 1992, 1998). The International Lactation Consultant Association (ILCA) states that "routine supplementation represents unnecessary risks to the infant, and is detrimental to a woman's self-confidence and her milk supply" (ILCA, 2000, p.2). The ABM (2010) proposes that all pregnant women be given information on these benefits and risks. Therefore, before ascertaining the mother's preferred method of infant feeding, the L&D nurse should assess the mother's knowledge of benefits of breastfeeding and risks of formula feeding to ensure informed consent.

Whether or not the mother has adequate knowledge, the L&D nurse should maintain the normalcy of breastfeeding by assuming that the mother will breastfeed. She can explain the protocol of putting the baby skin to skin with the mother to be dried and left until after he has breastfed. If the mother says she is not planning to breastfeed, the nurse can inform her that the same procedure will be followed because it is just as important for formula-fed babies to have this skin-to-skin contact. Depending on the mother's stage of labor at admission and her interest in pursuing the subject, the nurse can provide basic information about some of the many benefits of breastfeeding and the risks of formula.

Labor Analgesia/Anesthesia

Other issues requiring informed choice on admission to labor involve comfort measures and pain management. To make an informed decision mothers must understand the impact of analgesia and anesthesia on labor, the infant, and the lactation process. Maternal analgesia results in lower Infant Breastfeeding Assessment Tool (IBFAT) suckling scores and early weaning (Riordan et

al., 2000). Regional anesthesia can cause poor quality contractions and prolonged labor (Leighton & Halpern, 2002), which interferes with the newborn's spontaneous breast-seeking and breastfeeding behaviors (Wiklund et al., 2009), and has a negative effect on breastfeeding (Heaman, 2005).

Babies of mothers who have epidurals are more likely to be supplemented in the hospital (Baumgarder et al., 2003) and stop breastfeeding in the first 24 hours (Torvaldsen et al., 2006). Consent forms for analgesia/anesthesia usually do not describe labor-altering and lactation-altering side effects. Informed consent for pharmacologic pain relief should begin with prenatal education that includes full, unbiased information about these methods (Lowe, 2004). This is another reason for intrapartum nurses to encourage childbirth education and collaborate with childbirth educators. It then falls to L&D nurses to assess the mother's knowledge of the impact analgesia and anesthesia has on labor, the infant, and lactation.

Non-Pharmacologic Comfort Measures

In addition to assessing the mother's knowledge of analgesia and anesthesia, the nurse should ascertain the mother's knowledge of their alternatives. Because labor pain interpretation is so individual, a variety of pain management options should be available (Lowe, 2002). Hodnett (2002) studied satisfaction with the labor experience and noted that pain, pain relief, and medical interventions had minimal influence, while support, communication, information, and involvement with decision making were the main elements of childbirth satisfaction. Since the prepared childbirth movement of the mid-1900s, women have sought ways to lessen the need for analgesia/anesthesia and their attendant risks. A Cochrane review showed that women who received labor support had shorter labors, less analgesia, more spontaneous births, infants with higher Apgar scores, and more satisfaction with the birth experience than those without labor support (Hodnet et al., 2011).

Labor support is also associated with timely onset of lactogenesis and improved breastfeeding continuation rates (Nommsen-Rivers et al., 2010). Hospital staffing often does not allow continuous labor support to one woman in labor (Green et al., 2007). Labor support has been shown to be more effective when provided by companions who are not part of the hospital staff (Hodnett et al., 2007). When mothers have inadequate information due to lack of prenatal education or preparation, and do not have a labor companion for support, the nurse is challenged to assist the unprepared mother in pain management techniques, which can be very time consuming. Comfort measures that nurses can use or teach to support persons include relaxation, breathing techniques, position changes, massage, hydrotherapy, applications of heat and cold, guided imagery, counter pressure and massage (Brown et al., 2001; Simkin, 2007).

Childbirth education often fails to provide unbiased information about these techniques (Torres & De Vries, 2009). Hospital-based prenatal classes may be more focused on orienting women to hospital routines rather than informing them of their options (Carlton et al., 2005). Therefore, the L&D nurse should assess the mother's knowledge of, experience with, and motivation for use of non-pharmacologic comfort measures to customize education and labor support to avoid or minimize pharmacologic measures. One way to initiate this assessment is to inquire about childbirth preparation by asking about the mother's plans for labor and how the nurse can best assist her in comfort measures and pain management. This assessment can initiate whatever dialog the mother's labor status will allow.

Labor Practices and Interventions

In addition to the important role in obtaining informed consent, the L&D nurse can advocate for practices that promote normal labor processes. According to Smith (2007, p. 629), "normal birth is the key and foundation to normal breastfeeding." Lamaze International's position paper on promoting, supporting, and protecting normal birth advocates for allowing labor to begin on its own (Amis, 2007), allowing freedom of movement throughout labor (Shilling et al., 2007), providing continuous labor support (Green et al., 2007), avoiding routine interventions (Lothian et al., 2007), allowing spontaneous pushing in upright positions (DiFranco et al., 2007), and keeping mother and infant together with unlimited opportunities for breastfeeding (Crenshaw, 2007).

Kroeger and Smith (2004) proposed that many L&D practices undermine breastfeeding including bedrest, supine position, limitation of food and drink, induction of labor, analgesics and regional anesthetics, operative vaginal birth, and cesarean delivery. Unfortunately, the first intervention upon admission to an L&D unit is often bedrest and continuous EFM. Bedrest in the recumbent position can decrease the quality of contractions, slow dilatation and effacement, cause maternal hypotension and decreased uteroplacental blood flow, and increase pain necessitating more analgesia/anesthesia (Zwelling, 2010).

Pitocin augmentation to counteract poor-quality contractions can result in more painful contractions (Simpson & Knox, 2009) necessitating additional analgesia/anesthesia, as well as serious complications, such as placental abruption or uterine rupture that increase the risk for emergency cesarean delivery (Thorsel et al., 2011). Prolonged labor, pitocin augmentation, and labor pain medication are all associated with delayed onset of lactogenesis (Dewey et al., 2003).

Amniotomy [artificial rupture of the membranes] to augment poor quality contractions can increase the incidence of prolapsed cord necessitating cesarean delivery (Smyth et al., 2011), and impose a time limitation on the labor due to the risk of infection from prolonged rupture of membranes (Maharaj, 2007). Cesarean section can result in delayed or diminished maternal/infant contact (Chalmers et al., 2010), delayed onset of milk production (Dewey et al., 2003; Scott et al., 2007), and suboptimal breastfeeding practices (Zarnado et al., 2010). Instrumental and surgical birth can exert excess mechanical forces on the infant's head disrupting bony structures and affecting the nerve and muscle function necessary for nursing (Smith & Kroeger, 2011).

This cascade of potential complications highlights the importance of nursing interventions that advocate for normal labor processes. The nurse can promote freedom of movement by using intermittent auscultation (20 minutes of every hour) versus continuous electronic monitoring (Lothian et al., 2007). Walking and upright positions have been shown to reduce the length of labor (Lawrence et al., 2009). The nurse can encourage walking or slow dancing, or using rocking chairs, birthing balls, or squat bars (Shilling et al., 2007). Showers or tub baths encourage ambulation for as long as the laboring woman is comfortable. For women confined to bed, the intrapartum nurse can do much to discourage the recumbent position, and to assist with frequent position changes, such as side lying, squatting and hands-and-knees positions to minimize back labor and facilitate normal rotation and descent of the fetal head (DiFranco et al., 2007).

Another common intrapartum routine is administration of IV fluids and restriction of oral food and fluids. Inadequate hydration in labor may contribute to dysfunctional labor and possibly cesarean delivery (Garite et al., 2000). Limitation of oral nutrition and fluids during the intrapartum period can lead to fever, hypotension (Eslamian et al., 2006), dehydration, ketosis, hyponatremia, and maternal stress (Sharts-Hopko, 2010), all of which can negatively affect breastfeeding. O'Sullivan and colleagues (2010) found that eating during labor did not influence obstetric or neonatal outcomes. Over administration of intravenous fluids can cause postpartum edema, which can delay the onset of lactogenesis (Nommsen-Rivers et al., 2010) and lead to difficulties with latch-on and milk expression (Cotterman, 2004). To avoid these negative influences on breastfeeding, the nurse should encourage oral hydration and nourishment, unless contraindicated, and carefully monitor fluid intake and output (Lothian et al., 2007).

Care of the Neonate

Neonatal practices can also profoundly affect the success of breastfeeding. Skin-to-skin contact and delayed bathing and newborn prophylactic measures can improve the success of breastfeeding. Close body contact of the mother and infant during this sensitive period helps regulate the newborn's physiological processes and promote breastfeeding behaviors as well as stimulating the mother's attention to her infant's needs (Winberg, 2005). This contact facilitates breastfeeding (American Academy of Pediatrics [AAP], 2005; ABM, 2009, 2010), and induces long-term positive effects on mother-infant interaction (Bystrova et al., 2009). A Cochrane review of studies of early skin-to-skin contact found significant positive effects on early breastfeeding including less crying, more stable temperatures, higher blood-glucose levels, and longer breastfeeding duration, as well as improved maternal affectionate behaviors and attachment behaviors (Moore et al., 2007). Because babies placed on their mother's chest make crawling movements toward the breast, root, latch-on, and suck, this contact should be uninterrupted until after the first feeding at the breast (Righard & Alade, 1990). This contact leads to shorter hospital stays (Charpak et al., 2001), and increased duration of breastfeeding (Mikiel-Kostyra et al., 2002). The nursing implication is to place the baby immediately on mother's chest and leave the baby skin to skin, allowing ample time to encourage bonding, breast-seeking, and breastfeeding behaviors.

The AAP recommends that drying of the infant, performing initial physical assessment, and Apgar scoring should be done with the baby skin to skin with the mother, and that weighing, measuring, and bathing be delayed until after the first breastfeeding (AAP, 2005). The intrapartum nurse can encourage delay of cord clamping until it stops pulsing and ensure that other necessary interventions do not interfere with the early, time-sensitive, skin-to-skin contact (Sobel et al., 2011). The administration of prophylactic medications should

also be delayed to allow uninterrupted mother/baby contact and breastfeeding (AAP, 2005; ABM, 2010). The baby bath should also be delayed until the first breastfeeding is accomplished.

The nurse can facilitate implementation of these standards and support the likelihood of a successful first breastfeed by providing privacy and limiting visitors. If a sick, premature, or low birthweight infant is transferred to the NICU before it has the opportunity for skin-to-skin contact and breastfeeding, the intrapartum nurse can assist the mother to initiate breast pumping within the first hour of birth. This has been shown to increase milk volume and decrease the time to lactogenesis stage II (Parker et al., 2012).

This review of the potential effects intrapartum practices and interventions have on lactation and breastfeeding was intended to encourage intrapartal nurses to thoughtfully consider these effects and implement the recommendations summarized in Table 1 into their clinical practices. By doing so nurses can support choices made during the prenatal period, better educate the mother, empower her to make informed choices, avoid unnecessary intrusion into the normal birth process, and maximize the potential for meeting her breastfeeding goals.

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Recent Study Finds that Controlled-Crying Causes No Apparent Long-term Harm: Should We Recommend It?

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A recent article in *Pediatrics* (Price, Wake, Ukoumunne, & Hiscock, 2012) reported on the long-term effects of a controlled-crying intervention for parents of infants 8 to 10 months old. The children were assessed five years post-intervention and showed no apparent harm. The media response to these findings has been overwhelming. Could this be the answer that weary parents have been waiting for? The authors certainly thought so. In fact, they concluded that practitioners could "confidently" recommend this approach.

Before we recommend this approach to parents, let's step back for a moment and consider whether this recommendation is warranted. We must critically evaluate both the current study and where it fits within the larger literature in maternal-child health. In my view, there are a number of serious limitations to this study that call into question whether we should recommend this practice to parents.

Visit http://media.clinicallactation.org/3-4/CL3-4Kendall-Tackett.pdf
for the complete commentary.

Department of Labor's Resource for Working Mothers

The U.S. Department of Labor has a new website that outlines the laws related to working and breastfeeding for mothers whose employers are not allowing them to breastfeed or pump at work. Since there are no state laws, the U.S.Department of Labor is the only agency with the authority to handle these queries.

http://www.dol.gov/whd/nursingmothers/