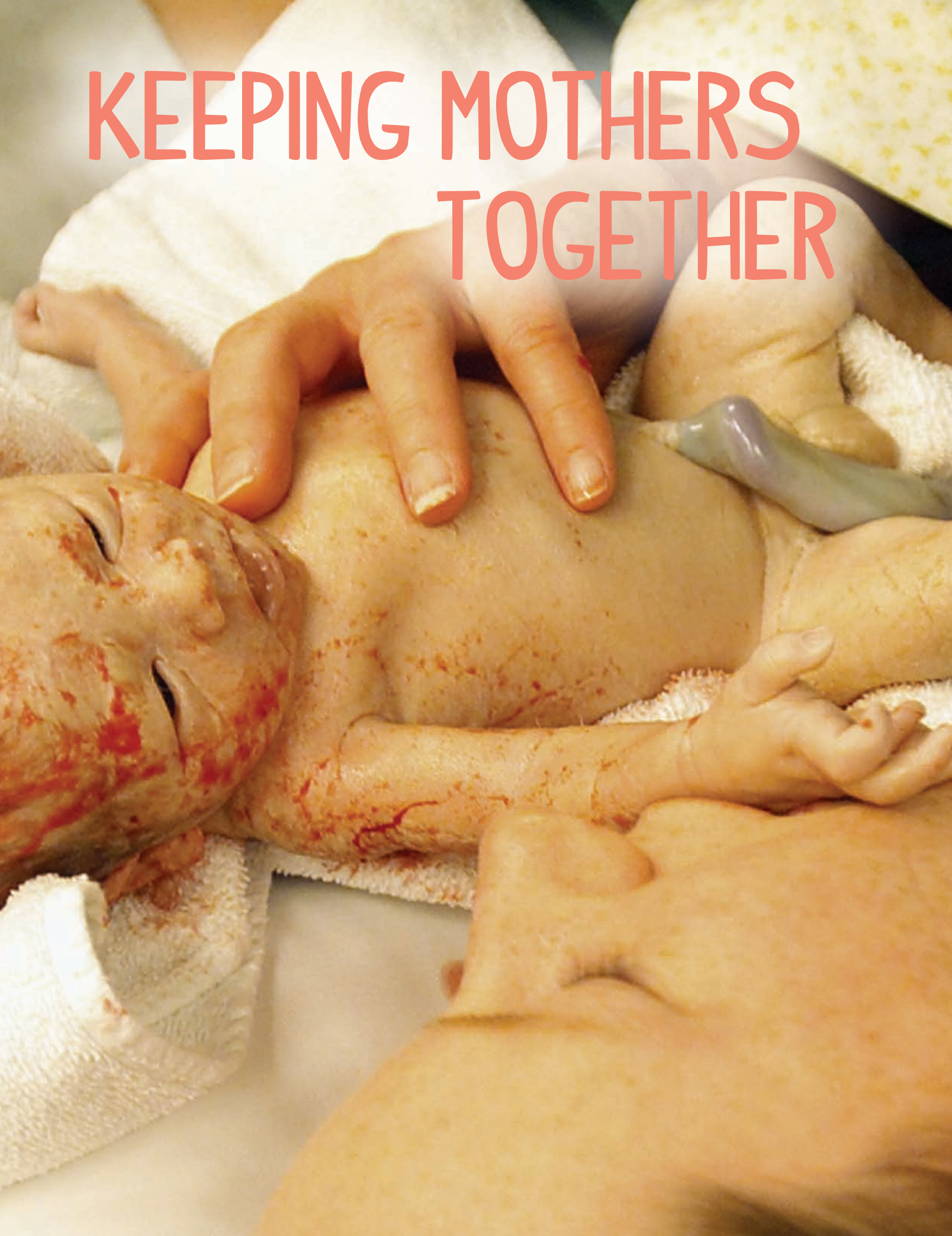
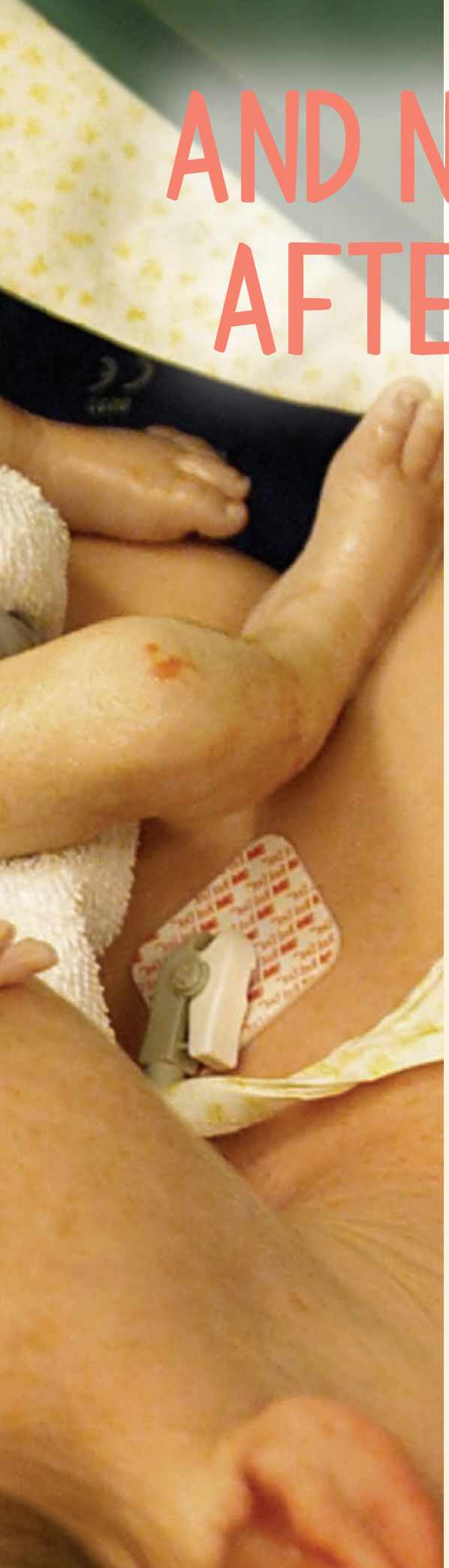
KEEPING MOTHERS TOGETHER





AND NEWBORNS AFTER CESAREAN

How One Hospital Made the Change

NEVA ELLIOTT-CARTER, RNC-LRN, BSN
JEANNIE HARPER, PHD, RN

Veterinarians know that separation of an animal mother and her newborn in the first minutes and hours after birth may compromise the health and survival of the newborn. It has been observed that human infants whose prematurity or illness necessitated a prolonged separation from their mothers resulted in mothering disorders (Kennell & Klaus, 1979). These observations led John Kennell, MD, and Marshall Klaus, MD, to question whether the human mother might experience a unique period in the time immediately after birth that may be a sensitive or even crucial time for maternal-infant bonding to occur (Kennell & Klaus, 1979). Ever since this pioneering research, many studies have been conducted to study the effects of skin-to-skin contact on maternal-infant bonding, physiology and early breastfeeding behaviors. In one study that examined four different groups of mothers and infants, researchers concluded that early skin-to-skin contact, early breastfeeding or both during the first 2 hours of life positively affected maternal-newborn bonding behaviors, and that the negative effect of a 2-hour separation after birth wasn't compensated for by the practice of rooming-in (Bystrova et al., 2009).

Abstract: Keeping mothers and newborns together during the time immediately following delivery has several benefits, including the promotion of maternal-infant bonding and breastfeeding, which are essential components of care. A new care delivery model was instituted at a large women's health hospital so that women who delivered by cesarean were able to recover with their infants. The change was the result of a multi-department collaborative effort, and the outcome has been very positive, with increased satisfaction reported by nurses, physicians and patients, as well as the observation of the promotion of breastfeeding and maternal-infant bonding. DOI: 10.1111/j.1751-486X.2012.01747.x

Keywords: breastfeeding | care delivery model | cesarean | family-centered care

RECOGNIZING THE PROBLEM

Our hospital, a women's specialty hospital in south Louisiana, delivers close to 8,000 infants annually. In 2010, more than 3,000 of those infants were delivered via cesarean section (Woman's Hospital, 2010a). The hospital has had labor, delivery and recovery (LDR) suites for mothers who delivered vaginally for several years. Additionally, Couplet Care, in which mothers and newborns remain together for the entire hospital stay, was initiated in the 1990s. However, we continued into the 21st century with the "tradition" of separating the mothers from their infants after cesarean delivery. Infants that were delivered by cesarean were taken to the transition nursery for bathing and observation, while mothers recovered in the obstetric post anesthesia care unit (OB PACU). This separation of mothers and infants delays critical bonding, skin-to-skin contact and breastfeeding.

Plans for our new hospital, currently under construction, include larger and more private spaces in the OB PACU, thus allowing for infants to accompany their mothers during the maternal recovery period. Despite knowing that changes were needed, it was widely accepted by most hospital staff that the current hospital layout didn't allow us to implement maternal/newborn bonding immediately after cesarean delivery before our move to the new facility. Therefore, the problem remained that our cesarean-delivered mothers and infants were being separated during a time when contact is essential. In addition, this separation included mothers who had a tubal ligation after delivery, and it was apparent that a change was needed.

Change is prompted by motivation, and our nurses began to see several motivating factors. These included the desire for the hospital to become more "birth-friendly," patients' requests to not be separated from their infants, a desire to stay competitive in the community, and the commitment to maintain our status as a leader in current obstetric practices. Perhaps the most compelling reason was the fact that it simply seemed unfair to allow some mothers to recover with their infants, while routinely separating a significant percentage of mothers and infants because they didn't experience vaginal delivery. Thus, the stage was set to advocate for our patients, prompting the nursing leadership to take action.

The hospital's current cesarean rate was 40 percent, of which 29 percent were primary and unscheduled and 11 percent were scheduled (Woman's Hospital, 2010b). The process change would also include patients undergoing tubal ligation surgery after a vaginal delivery because those patients were also taken to the OB PACU for recovery.

Neva Elliott-Carter, RNC-LRN, BSN, is a staff nurse in the Transition Nursery at Woman's Hospital in Baton Rouge, LA. Jeannie Harper, PhD, RN, is an instructor of Nursing at Southeastern Louisiana University School of Nursing in Hammond, LA. The authors report no conflicts of interest or relevant financial relationships. Address correspondence to jeannie.harper@selu.edu.

RATIONALE FOR CHANGE

The Mother/Baby and Labor and Delivery (L&D) leadership collaborated to brainstorm how we might be able to make this change happen before the move to the new hospital, which was anticipated to be more than a year away. The benefits for initiating the change prior to the move were discussed. One primary motivating factor related to the significant cultural change that would impact nurses working in the transition nursery, who attend deliveries to provide infant care. The transition nursery nurses could acclimate to the change prior to the move, which would be one less major adjustment to be made.

Keeping mothers and infants together after delivery is supportive of breastfeeding, because it offers opportunities to nurse, usually in the first hour after birth (Crenshaw, 2007). Early breastfeeding has been shown to positively impact the duration of breastfeeding (Dabrowski, 2007; Walters, Boggs, Ludington-Hoe, Price, & Morrison, 2007). The Gift, a program that promotes and supports breastfeeding in Louisiana, states that hospital policy should encourage breastfeeding within 2 hours of birth, with the first hour being the ideal (The Gift: Guided Infant Feeding Techniques, n.d.). Studies of Kangaroo Care,

Change is prompted by motivation, and our nurses began to see several motivating factors. These included the desire for the hospital to become more "birth-friendly," patients' requests to not be separated from their infants, a desire to stay competitive in the community, and the commitment to maintain our status as a leader in current obstetric practices

in which the unclothed infant is placed skin-to-skin between mother's breasts, have demonstrated that early skin-to-skin contact between mother and infant promotes temperature, glucose and respiratory stabilization in the newborn (Feldman, 2004).

A recovery setting that keeps mothers and newborns together is a perfect setting in which to initiate skin-to-skin contact after a cesarean delivery. When infants were brought to the transition nursery while their mothers recovered, it wasn't at all unusual for a nurse to give a first feeding of formula while the newborn was still in the nursery, unless the mother had particularly strong feelings against formula feeding.

PLANNING THE CHANGE

The initial planning group included managers from the Mother/Baby, L&D and Neonatology groups. However, it quickly became apparent that the change would be far-reaching within the hospital, and that many other departments would need to be involved. Materials Management and Pharmacy leadership were asked to be included in the planning meetings. The proposed changes would also require involvement of the Environmental Services (EVS) staff. Other departments that needed to be informed of the process change included Radiology, Pediatrics, Obstetrics Leadership, Security, Admitting, Respiratory Therapy, Central Supply, Anesthesia, Educational Services, Marketing and Information Systems. Given the large number of births affected, it was imperative that all departments affected be made aware of the changes.

Finding an area in which to recover cesarean-delivered mothers and infants together was one of the first issues that needed to be addressed. The original plan proposed that the extra rooms in the adult intensive care unit (AICU), which generally runs a very low census, would be designated as the area. That location was eventually rejected due to regulatory restrictions. The second option related to the use of the overflow LDR suites. The LDR suites are frequently full with laboring patients, but the L&D overflow rooms, located between the LDR suites and the AICU, seemed to offer a good choice. These rooms are smaller than the LDR suites, and therefore, less desirable for deliveries; however, these rooms could still be equipped with the monitoring devices necessary in the recovery period for the mothers, and radiant warmers for the infants. Mothers who had unplanned cesarean deliveries would return to the LDR suite in which they had been laboring.

Relatively, minor modifications were planned for the existing OB PACU, so it could be utilized in the event that the overflow rooms were full. Curtains were moved, allowing space for two mothers and their infants to recover while maintaining privacy. A radiant warmer for thermoregulation and bathing the infants was placed in each bay. In addition, not all of the OB PACU nurses were certified in the neonatal resuscitation program, so it was essential to initiate training for them.

Supplies to support infant care were moved to more proximal locations. Pharmacy was alerted to stock the Pyxis® in the overflow area with the medications commonly used for mothers after delivery. In the event that all LDR suites, overflow LDR rooms and OB PACU bays were occupied, we could overflow to the AICU. A mobile supply cart was stocked with inventory for that possible event. Decisions also had to be made concerning which unit clerks would put together the infant charts.

We requested that EVS stock the blanket warmer in the overflow unit with additional baby blankets. It was agreed that a red tag on the LDR room door would indicate that the mother was to return to that room after her surgery, alerting EVS personnel to empty the trash containers and tidy up the room, but not do a full cleaning.

The plan for infant care was that nurses in the transition nursery, well-baby nursery and circumcision room would be flexible and provide backup as needed. The plan called for the well-baby nursery and circumcision room positions to be staffed with transition nursery-trained nurses so that they could be utilized to attend or relieve at deliveries if necessary, when many deliveries occurred in a short period of time. The nursery ancillary staff could be called to bathe infants in L&D, while the nurse charted on high-volume days.

A commitment had to be made to make a coordinated effort to go where the mothers and babies were, rather than bring-

Keeping mothers and newborns together after cesarean promotes family-centered care and has increased satisfaction among patients as well as nurses and physicians

ing the babies to the nursery. The exception would be an infant with continued symptoms of distress; those infants would still be transferred to the transition nursery for monitoring and observation. The clear directive was that this change represented what is best for our patients.

TRIAL RUN

Once leadership had the plan in place, education was provided to staff nurses. A trial run for implementation was then planned; we knew that we would gain essential input from the nurses at that time. Two dates were chosen to trial the new process for the scheduled cesarean deliveries. Nurses' feedback from the trials included the need for additional linens, waste baskets proximal to the radiant warmers and clocks for the rooms. They also requested more seating areas to chart electronically, and an extra computer for the overflow area.

The L&D unit made some revisions to its visitation guidelines. Formerly, all patients delivering in the operating rooms were brought by a stretcher to the family-viewing room to allow other family members to greet and view the newborn in mother's arms. The changes included bypassing the family-viewing room with the unscheduled cesarean patients and allowing their guests to visit in the LDR rooms. Scheduled cesarean patients are taken from the operating room to the family-viewing room before they are taken to the smaller LDR rooms or to the OB PACU, where visitors are limited to two guests.

The amount of time involved in planning and preparation for the change was relatively small. Transition nursery staff members first learned of the plans for the process change at staff meetings conducted on July 28, 2010, and the "Go Live" date occurred on September 14, 2010.

EVALUATING THE RESULTS

Outcomes for this process change have been positive and far-reaching. One of the primary contributing factors to the hospital achieving "Gift" status (Guided Infant Feeding Technique) was that mothers and infants are not routinely separated after birth. The Gift is a certification and quality improvement program for birthing facilities in Louisiana that promotes breastfeeding initiation, duration and support (The Gift: Guided Infant Feeding Techniques, n.d.). With cesarean-delivered mothers now recovering with their infants, we have at least 40 percent more couplets together immediately after birth. The

mothers who arrive for scheduled cesarean delivery are delighted when they learn that their infants will stay with them throughout the recovery period, providing both are stable. Patients who previously delivered via cesarean and recovered in the traditional way (with the infant going to the transitional nursery) are especially happy.

While many of the transition nursery nurses initially expected to be caring for infants themselves while mothers slept, they've found instead that keeping mother-infant couplets together frequently allows for earlier skin-to-skin contact and breastfeeding. We consistently receive maternal feedback that the initial breastfeeding went extremely well, compared to the difficulty encountered previously when mothers and infants had been separated for 2 hours before breastfeeding initiation.

We've had more than a year to further evaluate our outcomes, and the findings have been overwhelmingly positive. For example, from October 2010 to October 2011, our hospital had a monthly average of 710.25 births. Before implementing this change, an average of 301.58 (42 percent) of infants would have gone to the transition nursery immediately after birth. Now an average of only 26.33 (3.7 percent) of infants were separated from their mother after birth. We are thrilled with the results and hope that other hospitals could benefit from this change as well.

Another advantage that has been identified by nurses relates to infant medication administration after birth. Although our practice has been to obtain and administer newborn medications shortly after birth, nurses are realizing that they should delay the administration of eye drops and vitamin K injections until after skin-to-skin contact and breastfeeding have occurred. This is a far-reaching advantage, because it relates to both vaginal and cesarean deliveries; essentially, this is approximately 8,000 mothers and newborns annually who recover and bond together.

IMPLICATIONS FOR NURSING PRACTICE

This process modification introduced some big changes, but with careful planning and collaboration, we have seen positive outcomes. In addition to the mechanics of changing the way we care for patients, earlier breastfeeding and better bonding opportunities for this population of more than 3,000 mothers and infants each year were facilitated. If a hospital that delivers 8,000 infants annually can find a way to decrease the separation of mothers and newborns, concerned nurses everywhere should be able to implement this type of care.

FUTURE FOLLOW-UP

Our statistical data thus far have been positive, and we would like to conduct further research to evaluate the effect of this change on various outcomes, including the number of infants requiring transfer to the transition nursery, breastfeeding rates and use of pain medication in recovering mothers.

CONCLUSION

We strongly believed it would be possible to keep mothers and newborns together after cesarean delivery, because we had previously recovered a small number of mothers with their infants upon specific request not to be separated from their infants after delivery. We are very excited to provide more patients the opportunity to experience early bonding, skin-to-skin contact and initiation of breastfeeding. One of the nursing theories chosen by our hospital is Jean Watson's Theory of Caring. According to Watson (2005), by facilitating the bonding between mothers and newborns and by teaching and giving support to the new family, not only are patient outcomes enhanced, but nurses also experience an emotional-spiritual sense of accomplishment, satisfaction and purpose from their work.

Keeping mothers and newborns together after cesarean promotes family-centered care and has increased satisfaction among patients as well as nurses and physicians, all without incurring a huge cost. **NWH**

Acknowledgment

The authors acknowledge Dana Vidrine, RN, BSN, Karrie Delise, RN, BSN, and Leah Terrell, RN, MSN, who generously provided much of the information regarding the planning phase of this change process.

REFERENCES

Bystrova, K., Ivanova, V., Edhborg, M., Matthiesen, A-S., Ransjo-Arvidson, A-B., Mukhamedrakhimov, R., Uvnas-Moberg, K., & Widstrom, A-M. (2009). Early contact versus separation: Effects on mother-infant interaction one year later. *Birth, 36*(2), 97–109.

Crenshaw, J. (2007). Care Practice #6: No separation of mother and baby, with unlimited opportunities for breastfeeding. *The Journal of Perinatal Education, 16*(3), 39–43.

Dabrowski, G. (2007). Skin-to-skin contact: Giving birth back to mothers and babies. *Nursing for Women's Health, 11*(1), 64–71.

Feldman, R. (2004). Mother-infant skin-to-skin contact (Kangaroo Care): Theoretical, clinical, and empirical aspects. *Infants and Young Children, 17*(2), 145–161.

Kennell, J. H., & Klaus, M. H. (1979). Early mother-infant contact. *Bulletin of the Menninger Clinic, 43*(1), 69–77.

The Gift: Guided Infant Feeding Techiques. (n.d.). Website. Baton Rouge, LA: Author. Retrieved from www.thegiftla.org

Walters, M., Boggs, K., Ludington-Hoe, S., Price, K., & Morrison, B. (2007). Kangaroo care at birth for full term infants. *Maternal/Child Nursing, 32*(6), 375–381.

Watson, J. (2005). *Caring science as sacred science.* Philadelphia: F. A. Davis Co.

Woman's Hospital. (2010a). *Nursing annual report*. Baton Rouge, LA: Author.

Woman's Hospital. (2010b). *Recovery of cesarean section patients report*. Baton Rouge, LA: Author.