Implementation of a Couplet Care Program for Families After a Cesarean Birth

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Couplet care is the term used at The Women's Center at The University Community Hospital (WCUCH), Tampa, Florida, for the model of nursing care provided to new mothers, neonates, and their family members. Mothers and babies are not separated after delivery unless there is a concern about the health or safety of either the mother or baby. A support person (eg, spouse, family member) is required to participate in welcoming the new child into the family unit, and siblings and other relatives are encouraged to visit the couplet (ie, the mother and child) in accordance with the center's visitation guidelines. By staying together, the family has a better opportunity to bond with the new baby. The same nurse provides care for the mother and baby and is present to answer questions concerning care for the newborn and the recovering mother.

Previously, WCUCH practiced couplet care only after normal, vaginal births, while babies born via cesarean delivery were taken to the neonatal intensive care unit (NICU) after delivery. Many times, the mother who had given birth by cesarean did not touch, hold, or breastfeed the infant for hours, missing early bonding opportunities. A team of administrators, nurse leaders, and staff members wanted to make an effort to accommodate every couplet situation in the interest of promoting positive family-centered outcomes. Our goal was to begin offering couplet care to patients who had undergone a cesarean birth to aid in facilitating parent-infant bonding, support successful breastfeeding, and increase patient satisfaction. Each situation and couplet would be treated on an individual basis, considering the safety needs of the patients as a priority. Keeping these families together during the entire hospital stay would be a new venture, one that would challenge nurses from all of the center's units to change their usual practice.

Other Hospitals' Programs

The first step our team took toward implementing this practice change was to gain information about couplet care practiced at other institutions across the country. Via an Internet search, we identified five institutions offering models of care by this name.

Clarian Health System in Indiana advertises its Methodist Hospital, Indianapolis, as the first hospital in the state and the largest in the nation to have received Baby-Friendly certification

ABSTRACT

This article describes the implementation of a couplet care program for patients who have undergone a cesarean delivery. The goals of couplet care (ie, keeping a mother and infant together after the birth) are to facilitate family bonding, support successful breastfeeding, and increase patient satisfaction.

Staff members undertook an investigation to gain information about other facilities that offer couplet care and to establish support for this practice model of recovery. Education programs were devised to help ease staff members' concerns about caring for these surgical patients.

Additional research is needed on the value of couplet care for patients. Potential topics for future research include examining whether this care correlates with reduced postpartum depression and whether there are positive effects on the surgical recovery process.

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from the World Health Organization and UNICEF.[1] The baby and mother stay with the family during the entire hospital stay, based on the belief that bonding between the family and newborn is vital to the well-being of the baby.[2] There is no mention of whether vaginal and surgical births are treated differently. The University of Arkansas Medical Center, Little Rock,[3] and Cedars-Sinai Health Systems, Los Angeles, California[4] offer similar descriptions of couplet care, but they also lack information about whether couplet care is offered after both vaginal and cesarean births.

Medical Center Hospital (MCH) in Odessa, Texas, offers its description of couplet care as follows:

> *Within two hours after birth, the healthy Mother and Baby are transferred together to the postpartum unit down the hall from the [labor and delivery rooms (LDRs)]. Mother and baby continue to receive care from one of the couplet care nurses who are trained in the care of both mothers and babies.*[5]

The MCH web site states that recovering as a couplet provides bonding time for the entire family, and that the first hour is an optimal time to initiate breastfeeding. Open visitation is allowed, but the number of visitors is limited to two or three in addition to the support person, who is encouraged to remain throughout the hospital stay to take part in the adjustment process.[5] This particular model is the one most similar to WCUCH's model, but again there was no mention of including surgical births in the plan.

Finally, the description of couplet care at the Johnson Center for Pregnancy and Newborn Services at Lucile Packard Children's Hospital, Palo Alto, California, identifies the benefits of couplet care as increasing bonding, improving lactation initiation, improving patient care and teaching, and ultimately increasing staff/physician communication and improving customer satisfaction.[6] These are very similar to the goals set with the initiation of cesarean couplet care at WCUCH. The Johnson Center web site states that this plan of care is followed unless "otherwise clinically indicated,"[6] and again, there is no mention of whether surgical births are included.

The Importance of Bonding

After it was discovered that WCUCH would be the first facility in its market area to offer couplet care to surgical birth families and provide a separate room dedicated to surgical couplet recovery, we searched the literature to gather evidence concerning the importance of early bonding. This information would be used to educate the staff members involved in the change of practice to gain their support of this innovative program. Unfortunately, as a US Preventive Services Task Force report concerning promotion of breastfeeding noted, "Few studies of in-hospital interventions, including rooming-in and early maternal contact, have been conducted in industrialized countries."[7(p3)]

Klaus and Kennel, in their book titled *Parent-Infant Bonding*, point out the existence of the period during transition when the infant is very alert to sight, sounds, and family members.[8] Trevathan provides a good summary of the importance of early bonding from results of her research:

> *Touching and massaging the infant stimulates breathing, provides warmth, and serves to rub the fatty vernix caseosa into the skin, which may prevent dehydration. If she holds it over her heart, on the left side of her body, the mother may be quieting the infant with the rhythmic beat that was an important part of its intrauterine environment. Holding it on the left side may also facilitate eye contact, in that most infants prefer to turn their heads and look to the right. . . . The infant may lick, nuzzle, or even suckle the mother's breast in the immediate postpartum period. Nipple contact stimulates release of oxytocin into [the mother's] bloodstream, which results in uterine contractions, expulsion of the placenta, and inhibition of postpartum bleeding. The colostrum that the infant ingests provides immunological protection and is the only natural source of Vitamin K, a substance essential for normal clotting of blood, necessary, for example, for preventing*

hemorrhage at the site of the umbilical cord. In addition, this early suckling may enhance later breastfeeding.[9(p213)]

Trevathan stresses mother-to-infant eye contact and suggests that no eye drops or ointment be administered to the baby for at least one to two hours during the time that the transitioning neonate is at the extremely alert phase.[9] This is reinforced by the authors of *The Complete Guide to Women's Health,* who concur that the eye ointments or drops may be given after the two-hour bonding period, unless there is a known sexually transmitted disease present in the mother.[10] These authors stress that the bonding experience is a necessary part of a humanistic approach to family-centered birthing experiences.[10]

Implementation

The plan for postsurgical couplet care at WCUCH was devised as a collaboration of members from the labor and delivery, postanesthesia care, neonatal intensive care, OR, mother/baby, and gynecology units. Ideas for the plan's organization came from administrators as well as staff members who desired to have the best practices in place for the families. Safety was kept at the forefront of all planning, with each family unit considered uniquely individual in its diverse needs. Many members of this planning team had been involved with family-centered models of care at previous employment venues, including "rooming-in" in which infants stay with their parents throughout the hospital stay, and they were able to contribute their firsthand experience to the implementation process.

The areas most affected by couplet care for surgical births were the OR and postanesthesia care unit (PACU). Previously, the nurses had focused on the mother's condition as soon as the neonate was assessed and taken away to the NICU. The mother-baby nurses were accustomed to having four mothers along with the rooming-in babies, and they needed to be educated about the needs of the cesarean birth neonates for whom they would now be caring. Their patient numbers would remain the same with this new practice, but the nurses had to gain a comfort level in having these neonates with their mothers instead of in the NICU.

Safety was kept at the forefront of all planning, with each family unit considered as uniquely individual in its diverse needs.

Results of the weekly planning meetings were an escalation plan (Figure 1) and designated duties for all departments involved in the couplet care transition, which would include surgical births whenever it was considered safe for both the mother and baby (Table 1). Nurse leaders conducted formal and informal teaching and sharing sessions to prepare the nursing staff for this change in practice (Table 2). They explained the rationale for family-centered care involving the entire family unit to help with the needs of mother and baby. The circulating nurses received training in the form of inservice programs and posters from the neonatal advanced RN practitioner concerning care of the newborn in the OR.

During a redesign of the LDR and OR suites, an area that had previously been used as a surgical holding area was set aside for use as a designated couplet room. Adjacent to the one-day surgery (ODS) and PACU areas, this special room affords privacy for the recovering couplet and has the advantage of proximity to staff members who are trained to handle emergency situations concerning the mother or baby.

The day to receive the first couplet was designated as February 14, 2007—Valentine's Day. The furniture was in place and the room was stocked with supplies and medications for neonates. The first couplet's special day was a part of WCUCH's special day, and a small celebration took place while we waited for the family to arrive. The father cut the ribbon to the room, and the couplet arrived to flowers,

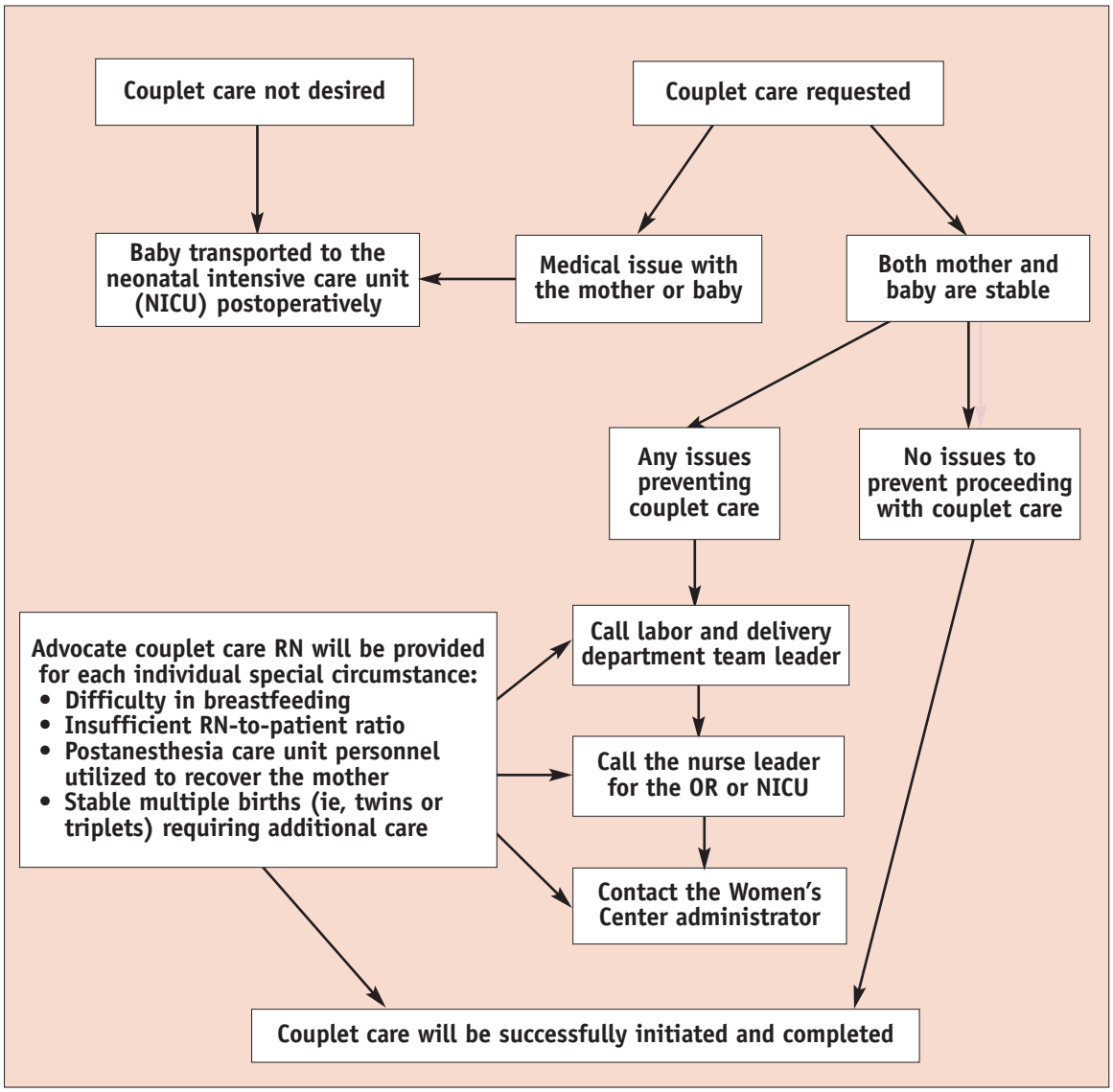

Figure 1 • Escalation process for couplet care implementation after cesarean delivery.

cards, and good wishes. This first experience was a success. Early breastfeeding was established, and the parents appreciated the quiet time to bond with their firstborn.

Since that time, the couplet room has been used daily, with nurses helping families to achieve bonding within the first two hours of the infant's transition to the world. The nurses encourage skin-to-skin touching, which aids in temperature regulation for the neonate. Breastfeeding is always encouraged during this period of newborn transitioning.

Evaluation

This has been a time of transition for the facility, with a few bumps along the way. Some of the RN staff members were concerned about their abilities to assess an airway emergency in a cesarean-born neonate and had difficulty focusing on the positive aspects of the program. Several of these nurses have chosen to leave the facility for other nursing positions. On the other hand, some nurses who had severe reservations about the new care model became so involved in the process of the bonding family that they

TABLE 1
Couplet Care After Cesarean Birth

Responsibilities of the neonatal intensive care unit RN

- Provide delivery room resuscitation per neonatal resuscitation protocol guidelines
- Record the Apgar score x 2, stool, and void
- Complete the newborn assessment to confirm safety for couplet care
- Identify and footprint the infant and sign the footprint record
- Document temperature, pulse, and respirations (TPR) for the infant
- Obtain a blood glucose reading for the infant if criteria is met for the hypoglycemia protocol
- Give a report on the infant to the recovery RN

Responsibilities of the recovery RN

- Facilitate bonding between the infant and the support person present
- Initiate breastfeeding
- Maintain thermoregulation
- Continue monitoring TPR every hour
- Repeat the blood glucose test per protocol
- Give report to the mother/baby RN when the couplet is transferred to the mother/baby unit
- Sign the footprint sheet during the process of checking the identification bands
- Administer erythromycin eye ointment and vitamin K to the infant if the parent is still in the labor and delivery room or postanesthesia care unit after 2 hours

Responsibilities of the mother/baby RN

- Assume care of the newborn and mother in accordance with hospital policy, providing transitional support and completion of the admission assessment for the newborn

surprised themselves at what a satisfying experience they found it to be for all parties involved. The formal and informal teaching sessions, including classes on neonatal transitioning for cesarean-birth babies, have helped staff members to be more informed. Just as important, the sessions have allowed them to share feelings and concerns about this change process.

There was a need to officially evaluate the entire process at six months to ensure that outcomes were equal to expectations. The five levels of learner evaluation developed by Rankin and Stallings, as described in *Nurse as Educator: Principles of Teaching and Learning for Nursing Practice,* include

1. assessment and readiness to learn,
2. the learner's participation during the intervention,
3. the learner's performance after the intervention,
4. the learner's performance in a daily long-term setting: outcome, and
5. the learner's maintained performance: the ongoing impact of learning.[11]

At six months, WCUCH was at level four, which allows assessment of learners' performance in their daily work environment, assuring an attitude and performance change. The primary evaluation method was direct observation, and informal debriefing of staff members was done as needed. The evaluation determined that progress had been made in the nurses' acceptance of the safety and security of the program for neonates.

Another evaluation was conducted after 12 months, and it was determined, at level five of the learner evaluation, that the changed behavior had been maintained on an ongoing basis. After months of practicing couplet care for cesarean births, the staff members have devoted themselves to making this program a success for families.

Some of the practices that are different now, months later, are the complete preparation of both staff members and patients for the couplet care practice model. Patients receive an educational pamphlet at registration and are encouraged to ask questions during the tour

TABLE 2
Teaching Plan: Couplet Care for Cesarean Delivery Implementation

Behavioral objectives	Learning content	Teaching strategies	Learning resources	Evaluation method	Time frame
At the end of the project, staff participants will be able to:					
1. Demonstrate an increased comfort level in participating in couplet care recovery for patients who have undergone a cesarean delivery	Standards for couplet care as created in collaboration with the leadership team from the departments of surgery, labor and delivery, and gynecology and the neonatal intensive care unit	Poster board and formal presentations at staff meetings, followed by informal focus sessions reinforced by role modeling by facility leaders	Poster board created from literature review Escalation plan and designated duties as handouts	Crossword puzzle for staff completion Direct observation	Immediate 6 months
2. Demonstrate increased staff satisfaction with participation in couplet care recovery for patients who have undergone a cesarean birth	Reinforcement of standards that have been formally presented	Continuation of role modeling and conversations with facility leaders	Leadership members who are concerned with the progress of implementation	Informal debriefing of information and questions and answers about the new model of care by nurse leaders	3-6 months
3. Demonstrate a 5% increase in patient satisfaction scores from labor and delivery department patients after implementation of couplet care for patients who have undergone a cesarean delivery	Availability of information to patients about couplet care at registration and preadmission in the form of a patient brochure in addition to staff support of the model	Resulting attitude change by staff members after receiving the education plan that shows support and proactively encourages the couplet model of care	Patient evaluations received by the hospital's reporting agency	Reporting agency monthly statistics	3-6 months

they receive of WCUCH. This gives them the opportunity to plan and make decisions for their personal birthing experience. All staff members now chosen to work in the center are evaluated on their attitudes and abilities to perform couplet care. Their support is vital in the continued success of the couplet care model.

Recent communications with nurse leaders at WCUCH shed light on the success of the implementation. Kathy Spirk, RNC, nurse leader for labor and delivery, perinatal care, the ODS, the PACU, and preadmission testing, states,

There is now complete cooperation and help between the PACU/ODS and the couplet room folks. There is definitely a greater comfort level for staff to communicate any patient need. I think the entire process has gone well. (e-mail communication, January 21, 2009)

From the perspective of the NICU, Linda Labart, ARNP, says,

It is going great! It is very routine for the RN to do the resuscitation, get the assessments and meds done very quickly. The NICU nurses spend less time away from the NICU because they [give report on] the baby and leave—previously they spent additional time allowing parents to bond before the baby was taken to NICU. They work well with the recovery RN—if the baby develops any problems during that period they can either manage the baby in the recovery area or transfer to the NICU—whichever is appropriate. (e-mail communication, January 21, 2009)

June Vinyard, RN, BSN, nurse leader for the mother/baby and gynecology areas adds,

The entire process is going well. There was a little resistance at first from mother/baby staff, as anticipated with any "change" from the norm. However, now it is routine and I never have any complaints. Staffing ratios have not changed due to the couplet care. It has been well accepted by our staff and is a patient pleaser! (e-mail communication, January 21, 2009)

Regarding recommendations for this type of practice change, Margie Boyer, RNC, administrative director of WCUCH, comments,

. . . be very cognizant of temperature stability while in the OR and couplet care room. Frequent temperature checks are essential and skin-to-skin in recovery area helps! We have an over-the-bed infant warmer also. (e-mail communication, January 21, 2009)

Boyer also notes that overall patient satisfaction scores at WCUCH have always been high, and although there has not been an increase in scores as a result of this program,

we receive numerous letters and verbal feedback on how pleased [patients] are with this model of care. We have also had patients switch to us from other hospitals. (e-mail communication, January 27, 2009)

Recommendations for Research

Many opportunities exist for both qualitative and quantitative research on couplet care for the surgical patient. The correlation of couplet care to reduced postpartum depression, success of breastfeeding, transitioning of the neonate, or quality of bonding for the surgical patient could be evaluated. Specifically for the surgical patient, the effects on recovery time and wound healing could be examined to find whether there are any positive effects of couplet care in the surgical recovery process.

Implications for Practice

Certainly, the couplet care model of recovering from surgical delivery is not for every family. Each family unit is treated with respect for their wishes during the entire birthing process. Safety for both mother and baby must always be the primary concern, and the family must be aware that their planned couplet recovery may not work out entirely as planned because of unforeseen circumstances, such as general anesthesia administration in the case of a failed spinal or epidural anesthetic.

The practice of providing couplet care for all families who desire it, whether the delivery is surgical or vaginal, is appropriate for WCUCH. The staff members have adapted Watson's Philosophy and Science of Caring Theory as the basis of nursing care for their clients, believing that "Caring is the central unifying focus of nursing practice—the essence of nursing."[12(p147)] Watson's work has gained acceptance in many nursing communities "by emphasizing communication skills, use of self-transpersonal growth, attention to both nurse and patient, and the human caring process that potentiates human health and healing."[12(p149)] What better way to demonstrate caring than by providing all patients with the

opportunity to share this precious bonding time, with one nurse caring for the needs of the mother as well as the child? – AORN –

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Alvimopan May Speed Recovery After Bowel Resection

Patients who have undergone partial bowel resection surgery may recover more quickly if they are given 12 mg of alvimopan 30 to 90 minutes before surgery and twice daily after surgery in conjunction with a standardized accelerated postoperative care pathway, according to a study in the November 2008 issue of *Archives of Surgery*. The randomized, placebo-controlled, double-blind, phase III trial included adult patients who were undergoing partial bowel resection with primary anastomosis by laparotomy and scheduled to receive opioid-based, patient-controlled analgesia intravenously. To facilitate gastrointestinal (GI) tract recovery, the standardized postoperative regimen included early ambulation, oral feeding, and nasogastric tube removal.

The primary end point for the study was time to GI-2 recovery (ie, toleration of solid food and first bowel movement). The secondary end points were time to GI-3 recovery (ie, toleration of solid food and first flatus or bowel movement); time to when a hospital discharge order was written; and time to actual hospital discharge. The researchers also tracked postoperative length of hospital stay, opioid consumption, and overall postoperative ileus-related morbidity.

The researchers learned that alvimopan significantly sped up time to GI-2 recovery, GI-3 recovery, and actual hospital discharge compared to the standardized accelerated care pathway alone. Alvimopan also was associated with a lower risk of postoperative ileus-related morbidity.

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