

# Hospitalization for Early Bonding of the Genetic Mother After a Surrogate Pregnancy: Report of Two Cases

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**ABSTRACT:** **Background:** *In surrogate pregnancies the genetic parents have little opportunity for early bonding to their infant, either prenatally (in utero) or in the immediate postnatal period. The purpose of this article is to describe a new method for encouraging early parent-infant bonding after surrogate pregnancy by hospitalizing the genetic mother in the maternity ward immediately after the delivery.* **Methods:** *Two genetic mothers were hospitalized in the maternity ward (rooming-in system) at the Rabin Medical Center in Israel immediately after delivery of their infants by surrogate arrangement. The first birth was a singleton pregnancy with vaginal delivery and the second, a twin pregnancy with delivery by cesarean section. The genetic parents were counseled by a social worker from the adoption agency, starting 3 months before the estimated date of delivery. The parents were referred to the hospital social worker before the delivery. To assess attachment, we observed the parents' behavior toward their children during two daily 15-minute periods of free, unstructured interaction.* **Results:** *The parents showed good primary caregiving functions and established affective verbal and physical contact with the infants. They began to recognize the infants' needs and temperament, and exhibited an aura of self-confidence during their interactions. All expressed satisfaction with the method at discharge and reported on reduction of their fears about returning home with the infants.* **Conclusions:** *We believe that early hospitalization of the genetic mother in a surrogate delivery may be desirable to establish good and safe early mother-infant bonding, and that it should be considered for adoption as regular hospital policy. Further randomized studies with larger samples over the long term are warranted. (BIRTH 28:4 December 2001)*

The early interactions between infants and their parents play a helpful role in the establishment of strong, positive parent-infant attachment, which has been found to predict good physical, cognitive, emotional, and social development later in life (1–4). In surrogate

pregnancies, however, the genetic parents have little opportunity for early bonding, either prenatally (in utero) or in the immediate postnatal period (5). To help improve this situation, we introduced a protocol wherein the genetic mother was hospitalized in the maternity ward immediately after the surrogate delivery. The aim of this paper is to describe our preliminary experience with this method.

## Methods

Participants included the genetic parents in two surrogate pregnancies, one of which was a singleton pregnancy with vaginal delivery and the second, a twin pregnancy with delivery by cesarean section. The genetic parents were counseled by a social worker from

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the adoption agency, starting 3 months before the estimated date of delivery. The women gave birth at the Rabin Medical Center in Petah Tiqva, Israel, and the genetic parents were referred to the hospital social worker before the delivery.

The first mother had undergone a hysterectomy after the birth of her first child because of abruptio placentae. The second mother, who suffered from cystic fibrosis, had never been pregnant because of infertility. To encourage early maternal-infant bonding, both women were hospitalized in the maternity ward immediately after the delivery. The general policy of our hospital is that all newborn infants are taken from the delivery room to the nursery. After a 4-hour observation period, the newborns are placed in the mother's room for rooming-in. The departmental staff was instructed to treat these parents like all the other new parents and to ensure that the other mothers remained unaware of their special circumstances.

#### *Mother 1*

This mother had a singleton surrogate pregnancy with a vaginal delivery of a full-term, 40-week gestation, normal baby (3210 g). At delivery, in contrast to our usual practice of having the genetic mother receive the newborn in one of the rooms in the department of neonatology with intermittent visits during the day, we allowed the genetic mother and father to receive the newborn in the delivery room. Thereafter, while the baby was taken to the department of neonatology, the genetic mother was hospitalized in the maternity ward, using the same practice as that for a mother who had given birth normally. In addition, she was given metoclopramide before delivery to stimulate breast milk production, so that by 4 hours after birth she was able to breastfeed the infant. (It is important to emphasize that this mother breastfed her first, natural child for 20 months.) On the second day, she participated in all the regular activities of the department, that is, bathing, nursing, and dressing the baby (rooming-in system), and attending counseling and instruction sessions. She was discharged with the baby 48 hours after birth. She continued to breastfeed her infant partially for a period of 6 weeks.

#### *Mother 2*

By consent of the surrogate mother, the genetic mother in this twin pregnancy was present in the operating room during the cesarean delivery to give physical and emotional support to the surrogate mother. The genetic mother received the twins immediately after birth (38 weeks' gestation, boys, 3480 g and 3220 g, respectively), and showed them to the surrogate mother. The

father was then invited into the delivery room to receive them as well. After spending about 15 minutes with the babies, the parents accompanied them to the neonatology department. The genetic mother was then admitted to the maternity ward, where the rooming-in system is routinely used. The parents, individually and together, had been instructed in newborn care by the hospital staff and were able to begin tending to their infants immediately and for the whole day. To further encourage and assist the parents, hospitalization was continued for 72 hours. The genetic mother performed all the tasks of a natural mother from the beginning, and the father was also involved in these activities. This mother was unable to breastfeed because of her medical problem of cystic fibrosis.

### **Results**

The genetic mothers and fathers' behavior toward their babies was observed based on descriptions from previous research in the field (6). The following activities were included: physical care (e.g., feeding, changing diapers and clothes, wiping face); verbal contact (vocalizing, talking to infant); stimulation (e.g., playing with infant); expressing affection (e.g., kissing, smiling, caressing); physical contact (e.g., holding and caressing the infant, walking with the infant); and eye-to-eye contact (e.g., looking at the baby). The infants' behavioral stages were categorized as sleeping, awake and inactive, awake and active, and fussing (crying, distressed). The parents and infants were observed for two daily 15-minute periods of free, unstructured interaction in the maternity ward.

In the first mother, observation began in the delivery room. We noted that she showed great interest in the pediatrician's routine examination of the baby's physical and behavioral development. She also exhibited strong emotional interaction with the child, holding him tightly for long periods, speaking to him often, telling him about the special way he came into the world, and trying to breastfeed him. The infant, during wakefulness, kept his eyes on her face throughout these interactions. The mother also encouraged her husband, first child, and all other family members to bond with the baby. The parents asked the elder child to choose the baby's name.

In the second mother, observation of the attachment process began in the operating room. The social worker was present in the operating room, not for observation but for supporting and helping the two mothers (surrogate and genetic). The genetic mother and father participated in the caretaking of the twins. We noted that both parents paid close attention to the infants' behavior and learned to recognize when they were happy and

respond to all their needs. The babies, when awake, looked at their parents' faces during their interactions.

At discharge, all the genetic parents expressed satisfaction with the method and reported feelings of heightened self-confidence regarding their parenting skills and attachment to the baby. In the second mother, the twins' follow-up at age 1 and 11 months showed weight gain and neuromotor and cognition developments within the normal range.

### Discussion

An attachment is a relationship between two people that is both specific and enduring (1). A special kind of attachment occurs between parent and newborn. This is perhaps the strongest bond formed between humans, and it is helpful to the survival and development of the infant (1,7).

The mother-infant bond is unique in that the fetus gestates within the mother's body before birth and is totally dependent on her for survival after birth (1,7). In surrogate pregnancy the genetic mother does not experience this direct physical and emotional connection either during pregnancy and delivery (5), or right after birth when she receives the baby immediately after the delivery, and then only for a short time (8). The genetic mother visits the baby in the neonatology department, but she does not feel or function in the same way as a "regular" mother.

Considering the importance of the early mother-infant bond and sensitive period during which such bonding takes place (1), we introduced a method that might at least partially compensate genetic mothers in a surrogate pregnancy arrangement for the possible damage caused by the lack of a natural pregnancy and delivery. To enable earlier contact between mother (parents) and child, we arranged for the genetic mothers to participate in the delivery and operating room and then be hospitalized in the maternity ward, following to the greatest extent possible the procedure for natural mothers. The rooming-in system routinely used in our department was highly conducive to this purpose.

Menning (9) noted that infertile couples tend to exhibit a series of emotional reactions to their infertility, ranging from initial shock and denial to a reactive phase and acceptance of the infertility. It has been well documented that women with fertility problems often suffer from diminished self-esteem, a sense of isolation, and feelings of insecurity, all of which can lead to despair and depression, anger, and guilt (10–12). These emotional difficulties start at the diagnosis of infertility and continue throughout infertility treatment (12). According to Boivin et al. (13), they are a neces-

sary part of the evolution to acceptance of infertility. As such, they may even persist after the birth of a child with assisted reproduction techniques (in vitro fertilization), in the form of low parenting capacity compared with that of fertile women. If treatment is unsuccessful, the couple experiences frustration and disappointment (9), often with periods of depression (12,14) and anxiety (15). In fact, treatment failure can precipitate serious psychological reactions in women (13).

The genetic (commissioning) mothers in our study were no exception. The surrogate pregnancy itself may have exerted an additional emotional burden because it was accompanied by fears that the surrogate mother could demand the baby for herself or that the baby would not be healthy (16).

The importance of breastfeeding and the increased maternal levels of oxytocin may play an essential role in maternal-infant bonding because oxytocin, the so-called "love hormone," may be involved in behavioral adaptations of the mother (17). Early breastfeeding is also extremely important because the infant's lips on the mother's nipple in the first hour change her behavior (18). In addition, Walton et al (19) demonstrated that newborns, ranging from 12 to 36 hours of age, produced significantly more sucking responses so as to see an image of their mother's face as opposed to an image of a stranger's face. These babies have already made a memory trace of their mother's face early after birth, and this probably occurs with the baby from a surrogate when he or she first looks at the genetic mother.

We hypothesized that our model would help raise the self-esteem of the genetic mother and strengthen her parenting functions. Our observational results and the parental reports at discharge suggested that it was indeed advantageous. In the second mother we offered her an extra day of hospitalization on the assumption that the benefit of early attachment far exceeded this extra cost.

This study supports the conclusion of Schuker (20) that, at least partially, nonbiological parents can be equally effective as nurturers as biological parents if good psychological parent-infant interaction occurs beginning from birth that provides a strong basis for effective, positive attachment. The author claimed that the new assisted reproduction technologies relieve the psychological pain of infertility while offering some infertile couples the opportunity of parenthood.

We suggest that this promising method of early hospitalization of genetic mothers in surrogate pregnancy arrangements be considered for adoption as regular hospital policy. Further randomized studies with larger samples over the long term using this method are warranted.

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