EDITORIAL

Quality, Equity and Dignity for Preterm Infants Through Family-centered Care

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'Bonding' between a mother and her newborn infant was a concept first described by DW Winnicott, the pediatrician turned psychoanalyst. In the 1970s and 1980s, Marshal Klaus and John Kennell in the USA, and Martin Richards, Cliff Roberton and Freddie Brimblecombe in the UK, raised the idea that mother-infant attachment and bonding in the early newborn period was of critical importance, especially for preterm infants [1]. Any period of separation between mother and infant, especially in an intensive care unit, might be traumatic to bonding, and have long-term consequences for the mother-baby relationship. Even a brief period of separation might set up a vicious circle of effects where poor interaction would lead to accumulating problems for the relationship. Others felt this was too strict a concept; the effects of separation depended upon the perception of the mother, the circumstances of illness, and took no account of the considerable powers of resilience and recovery by mothers.

Periods of separation certainly affect the onset of lactation and impairment of infant growth in low-resource communities, and increase the risk of maternal depression and child abuse in the years ahead [2]. Being born too soon also means that a mother's psychological preparation for motherhood is cut short, which might make her more vulnerable to the effects of separation. The crisis of having a sick preterm baby may make her and her partner feel depressed, intensely anxious, and create irrational fears about malformations. And where babies clearly do face long-term problems, parents require time and support to cope with this 'bereavement.' Conversely, a recent trial in India showed that attachment scores were one-third higher among low birth weight infants where the close maternal contact from kangaroo mother care was practised for six hours or more each day [3]. Even with intact preterm infants though, neurological immaturity means their interaction and 'dialogue' with a parent is blunted, so they are in some ways less satisfying and rewarding than term babies. Martin Richards, after observing the practice of multiple caregiving by many different nurses in UK neonatal units, wrote: "a prime aim of neonatal care must be to provide a peaceful and calm atmosphere in which parents get to know their infants."

Recently, I visited the neonatal unit in RML Hospital, Delhi where Professor Arti Maria and her team practise 'family centered care' (FCC), which they have evaluated through a randomized controlled trial [4]. In their study, they randomized 295 neonates at the time of hospitalization in neonatal intensive care unit to either the control group (n=147) or intervention group (n=148). Intervention involved training of the 'parent-attendant' in neonatal care using an indigenously developed and pretested, culturally sensitive, simple audio-video tool that covered domains of personal hygiene, hand washing, danger signs recognition and feeding of sick neonate. Control group received routine care by nurse-doctor. They reported a comparable incidence of nosocomial episodes of sepsis in both groups. However, the pre-discharge exclusive breastfeeding rates were significantly higher in intervention group.

The idea of FCC is simple – to involve parents at all times in the care of their sick newborns, not only to improve survival but also to respond to their needs and rights as parents. From the moment the infant is admitted to the unit, parents are offered training in basic nursing skills to feed, clean, clothe and monitor their baby. Both mother and father can enjoy continuous access to babies in equal partnership with the nursing staff. By enhancing competencies of parents, FCC builds a continuum of care from hospital to home, and makes for better preventive health and survival after discharge. What struck me most was the calm atmosphere of the unit as four mother 'nurses', in blue gowns and masks, stood by open cots under radiant warmers and caressed or cooed to their baby to start a crucial dialogue that would establish a lifetime of loving care. The environment is develop-mentally supportive for the sick baby, culturally sensitive,

and wonderfully responsive to the emotional needs of worried parents. It also supplements a shortage of nursing power within the nursery.

Readers of this journal need no reminder of the burden of newborn death and disability in India. Almost 25 million infants are born each year, of whom perhaps 3 to 4 million will be born too soon or face sickness soon after birth. Around half of all child deaths occur at this time. And the trend toward urbanization – from extended to nuclear families, with both parents often forced to work – means that bonding and secure attachments for young children are of even greater importance. Most people in India use public sector facilities where staffing ratios are low; so this approach has great economic value in the short-term, although training and support for parents does require additional time inputs from staff. FCC can therefore benefit the poorest and most vulnerable by judicious use of spare hands. It might also improve gender equality by involving both mothers and fathers equally in the care of their precious newborn baby. Children whose fathers are more positively engaged with them at the age of three months have fewer behavioral problems at the age of twelve months [5].

Above all, FCC is participatory and respectful, and provides mothers and fathers with dignity at a time when they are most vulnerable. I met with several families in Delhi whose infants had gone home after FCC, and there was unanimity in the appreciation they gave to this method. Adopted with overwhelming support by Member States at the World Health Assembly in May 2016, the *Framework on Integrated people-centered health services* (IPCHS) aims for a fundamental shift in the way health services are funded, managed and delivered [6]. Responsiveness and participation are key elements so that care is coordinated around people's needs, respects their preferences, and allows for people's participation in health affairs. In February 2017 in Malawi, WHO and UNICEF assisted nine countries, including India, to launch a Network for Improving Quality of Care for Maternal, Newborn and Child Health to cut preventable maternal and newborn illness and deaths, and to improve every mother's experience of care [7]. FCC, along the lines of the model developed by the Delhi team, is an important way to link quality, equity and dignity for newborns.

Only time will tell the extent to which FCC has a positive impact on future child development and the next generation, especially when facilities and staffing are sub-optimal. A working hypothesis is that exclusive breastfeeding, better hygienic practices, less infection and emotional attachment might all be longer lasting benefits. Follow-up studies of the FCC cohorts will be important. And evaluation of the method at scale is an implementation science question of some importance, in order to show that successful pilot studies in tertiary centers are not attenuated when scaled up through district facilities.

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