Maternal breastfeeding positions: Have we got it right? (2)

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Suzanne Colson asks whether it is time to try new approaches such as biological nurturing in order to increase breastfeeding continuation rates in the UK.

Biological nurturing (BN), developed from observations of successful breastfeeding, describes the holding and cuddling that most mothers naturally want to do as soon as the baby is born. During the past 25 years, I have observed and supported thousands of mothers who appear to enjoy breastfeeding in a variety of acute and community settings (Colson 1985).

Employed as one of the research midwives on the Hawdon, DeRooy and Williams team (2002) examining patterns of metabolic adaptation for healthy, moderately preterm and term but small for gestational age infants, I used BN to support breastfeeding and formally articulated the strategy for an MSc dissertation in midwifery studies (Colson, 2000). Although this was a small exploratory study where comparisons were not possible, BN increased the duration of exclusive breastfeeding for this group of ‘at risk’ babies (Colson et al 2003).

In 2001, in conjunction with South Bank University, BN was introduced during a midwifery practice development project funded by the Department of Health and carried out in East Kent Hospitals NHS Trust (Dykes, 2004). This project resulted in a peer-reviewed nurturing booklet written for mothers (Colson 2001).

Biological nurturing is currently the subject of PhD research (Colson 2005). Underpinned by a mixed methods approach, both breast and bottle feeding mother/baby pairs have been videotaped. Unexpected findings include the description of a range of sustainable breastfeeding postures and positions that appear to increase early maternal breastfeeding enjoyment, supporting pain-free and successful milk transfer. Full research results will be available next year.

BN has two components: a proactive mother-centred strategy emphasising baby-holding; and the midwifery assessment of maternal-infant wellbeing and milk transfer during feeding episodes.

Freedom of maternal posture

All mothers, regardless of feeding intention, are encouraged to make themselves as comfortable as possible from birth. This can be sitting upright, semi-reclined, side lying or flat lying. For my work, the word ‘posture’ always refers to the mother. For the mother, biological nurturing means finding a comfortable posture and offering her baby unrestricted access to the breast. This can be in as much skin-to-skin contact as desired. However, skin-to-skin contact is not a prerequisite to biological nurturing as exploratory research has suggested many mothers are reluctant to breastfeed without clothes or to undress their babies for a variety of reasons (Colson et al 2003).

Although healthy adults usually eat in upright postures, many lean back slightly. This may be a question of etiquette and, as noted previously, there does not appear to be any research data to justify the imposition of upright maternal sitting postures when feeding babies.

A BN maternal posture is defined as one that the mother says is comfortable, where there is no neck strain, shoulders are relaxed and all body parts are supported: it is pain-free, sustainable for a long period of time and thereby conducive to effective milk transfer. There are three basic assumptions underpinning BN postures contrasting them with the traditional upright postures paradigm reported previously (Inch et al 2003a):

1. Since all mothers’ bodies are different, there is not one posture that will fit all needs
2. Mothers easily find the right posture for their own needs and comfort when routine suggestions are avoided
3. Comfortable, sustainable postures will change and evolve throughout the breastfeeding time span. Initially, they may change from feed to feed or daily.

Plenty of positions

In my work the word ‘position’ always refers to the baby. Biological nurturing positions are defined as those where the entire frontal aspect of the baby’s body is in close juxtaposition with a maternal body contour, developing further the concept of ‘tummy to mummy’. In that way, and because the areola is round, there is a potential of 360 baby positions as there are 360 degrees in a circle. Realistically, of course, there are only approximately 200 accessible baby positions.

Above: This mother in a semi-reclined posture, has large breasts that point downwards and outwards but that does not prevent her three-day old baby from self attaching in a full BN position (oblique lie)

Positioning at the breast has recently been defined as the relationship between the baby’s body and the mother’s, whereas attachment is the relationship between the baby’s mouth and the mother’s breast (Inch et al 2003b).

Preliminary analysis of BN positions builds upon and further develops these definitions, bringing additional insights for the application of Woolridge’s findings (1986a; 1986b). Central to the understanding of baby positions is the concept of ‘lie’. I borrow the word from midwifery and obstetric antenatal fetal assessments and have redefined it to clarify BN positions in the postnatal context.

The lie of biological nurturing is the longitudinal, transverse or oblique relationship between the long part of the mother and the long part of the baby. Understanding the concept of postnatal lie can often be useful to encourage early breastfeeding for mothers undergoing caesarean section. In the first postnatal hours, many mothers are afraid that any body contact with the baby near the recent...
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There is no need to line up nipple to nose or to face will certainly be near the breasts, but there is no need to line up nipple to nose or to...

● (Inch et al 2003a): traditional paradigm reported previously

● Nutritional needs and the place of the baby during the first 24 hours. Most healthy term infants are born well-fed (Colson 2002). There is a physiological argument to be made focusing attention upon increasing the time of baby holding in BN postures/positions, the priority being maternal/neonatal comfort and enjoyment rather than teaching 'correct and efficient hands-off breastfeeding techniques' during the first 24 hours.

The health professional's role

During episodes of BN, many mothers and babies appear to display instinctive reciprocal feeding behaviours; midwives and other breastfeeding supporters are educated to recognise them, to learn how and when to stimulate them and to promote an environment conducive to successful milk transfer. Specifically, the midwifery focus is how to assess BN lie, neonatal awake/sleep behavioural states and milk transfer. This assessment is underpinned by nutritional physiology and a neurobehavioural theoretical framework which has inspired the concept of hormonal complexion.

Introducing hormonal complexion

Hormonal complexion is an umbrella term I am introducing to summarise the probable behavioural and mechanical effects of oxytocin (OT) and prolactin. For example, research findings suggest an association between high maternal OT pulsatility on the second postnatal day and an increase in breastfeeding duration (Nissen et al 1996).

There is also an increasing body of scientific research, mostly from animal studies, suggesting social, sexual and maternal behavioural effects - such as nesting and grooming - associated with the release of central OT. This has prompted some researchers to qualify OT as the tending, befriending, anti-stress or love hormone (Pedersen 1992, 2004; Herbert 1994; Boccia and Pedersen 2002). Although my study did not aim to examine OT pulsatility, the preceding observations, taken together with BN research video clips, introduce a compelling visual argument for the assessment of hormonal complexion as a strategy to support breastfeeding.

Along with nutritional physiology, the concept of hormonal complexion underpins BN and offers a strong theoretical framework to build upon and further develop "the anatomy of infant suckling" (Woolridge 1986a). Traditionally, it has been thought that teaching mothers positioning and attachment (P and A) skills was the way to apply Woolridge's (1986a; 1986b) pioneering research findings concerning the organisation and physiology of...
neonatal suckling (Renfrew et al 2005).

How effective is routine teaching of P and A?
The background
Although 69 per cent of mothers in the UK initiate breastfeeding, 21 per cent stop during the first two postnatal weeks (Hamlyn et al 2002). The most common reasons mothers give for this early unintended breastfeeding cessation are insufficient milk and sore nipples or breasts. These statistics largely justify the development of an early, consistent, cost-effective intervention to restore confidence in the physiology of milk production and to reduce the incidence of painful breastfeeding. Based on a recent authoritative professional consensus in England, obtained from 516 respondents, the routine teaching of P and A “using a predominantly hands-off approach” has recently been recommended as the high impact solution (Dyson et al 2005: 30). But what does the research evidence say?

The research
Until 2001, there were no randomised controlled trials (RCTs) examining the impact of routine standardised teaching of P and A upon breastfeeding rates. Since then, two trials have called this practice into question. A tentative to replicate results showing positive effect from a small observational study, Forster et al (2004) randomly allocated 981 mothers to one of three groups to examine the effects of teaching standardised P and A as one of two mid-pregnancy interventions. No significant differences were found with respect to breastfeeding initiation or duration between the experimental mothers in either group and the controls.

In the other RCT, Henderson et al (2001) hypothesised that a short (30 minutes), early (first 24 hours following birth), verbal (hands-off) postnatal intervention teaching P and A would in increase breastfeeding duration rates. Designed with sufficient power to show positive but not negative effect, 159 mothers were randomised to either an experimental group receiving the intervention or a control group receiving standard postnatal breastfeeding support (ie, teaching P and A by actively attaching the baby to the breast for the mother).

Surprisingly, results indicated a downward trend in breastfeeding duration rates in the intervention group, despite fewer sore nipples reported on days two and three. Experimental mothers were less satisfied with breastfeeding on four counts expressing:
1. dissatisfaction with ease of breastfeeding
2. less confidence in their feeding ability
3. scepticism that breastfeeding calmed an upset infant, and perhaps most strikingly,
4. fewer experimental mothers thought that their baby enjoyed breastfeeding.

In discussing these disappointing results, it was noted that many mothers find taught breastfeeding skills hard to achieve; the researchers could not rule out the possibility that routine ‘hands-off’ teaching of P and A was responsible for the lower breastfeeding rates in the experimental group.

A major limitation to the study was the possible confounding effects resulting from the researcher both delivering and assessing the effects of the intervention (Renfrew et al 2005). However, it could be argued that this limitation made these findings all the more surprising, considering that the hypothesis to which the researcher was committed, and had every opportunity to bias, proved to be ineffective.

The BN perspective does not challenge that positioning and attachment are integral to successful breastfeeding. However, in view of low, static breastfeeding duration rates in the UK for the past 20 years, it could be argued that there are gaps in the theoretical knowledge base. Once identified, they may lead us to reconsider both the nature and the timing of breastfeeding support. For example, perhaps it would be more effective if teaching of P and A was done in response to maternal request or to observed nipple sucking, rather than on a routine basis. Richard and Alade (1992) examined the effectiveness of correcting observed nipple sucking at hospital discharge (4-6 postnatal days). At four months, mothers whose babies had a faulty, uncorrected technique at hospital discharge had significantly more breastfeeding problems and earlier breastfeeding cessation. Although this small study had some confounding factors (such as the use of dummies), it may serve to increase understanding about what can happen when health professionals fail to respond appropriately to observed problems.

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Developing a professional approach
Biological nurturing builds upon and further develops a similar professional approach. Using counselling skills, midwives promote maternal/infant comfort and hormonal pulsatility; midwives are taught to assess hormonae complexion and milk transfer, discreetly, so that mothers do not feel observed; changes in maternal/neonatal postures/positions are only proposed when there are problems. In that way BN introduces new ways of thinking about breastfeeding that empower mothers to find their own ways.

Based upon observations of mothers who appear to enjoy breastfeeding, my research findings suggest that there are unexplored physiological perspectives supporting successful breastfeeding. Biological nurturing is more than nipple to nose and tummy to mummy, it is more than upright or side lying postures and cradle, cross-cradle and clutch or rugby holds, it is more than a correct sucking technique. BN is a two-person, whole-body experience introducing research evidence supporting successful breastfeeding. Biological nurturing builds upon and further develops a similar professional approach. Using counselling skills, midwives promote maternal/infant comfort and hormonal pulsatility; midwives are taught to assess hormone complexion and milk transfer, discreetly, so that mothers do not feel observed; changes in maternal/neonatal postures/positions are only proposed when there are problems. In that way BN introduces new ways of thinking about breastfeeding that empower mothers to find their own ways.

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Biological nurturing modules at Canterbury Christ Church University are planned for October 2006 in the context of Continuing Professional Development (CPD). TPM

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ABOVE: This mother, whose baby was born vaginally in a frank breech presentation, was taught P and A soon after birth. The baby fed well but the mother developed sore nipples.

ABOVE: Changing to a flat lying BN posture, with baby in a transverse lie, the baby’s legs relaxed; after a characteristic nesting pause, the baby self attached enabling pain-free feeds.

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