

Position and Attachment of the Babies During Breastfeeding: A Comparison of Before and After Counselling the Mothers

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Abstract

A prospective, observational study was conducted in the Department of Obstetrics & Gynaecology of Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh, between July 2008 and January 2009 to compare position and attachment of the babies during breastfeeding before and after counselling the mothers. Our study samples include 100 healthy mothers and 100 term healthy babies. Initially, all the mothers and babies were observed for their position and attachment during breastfeeding within 24 hours of the delivery and documented in a standard data sheet. Then the mothers were shown the wall chart of nursing mothers and breastfeeding manual and taught practically by the investigators. Mothers were requested to come after 15 days for follow-up visit so that they become physically fit by that time and improve their skills. At follow-up visit, documentation of the position and attachment during breastfeeding was done in the data sheet. Comparison of each of the components of positioning and attachment was done with first observation (i.e., within 24 hours of the birth of the baby) and follow-up observation (i.e., after 15 days). The mean age of the mothers was 29.40±4.71 years. In all components of the position and attachment of the babies, the difference between before and after counselling the mothers was statistically significant ($P<0.05$). Similarly, in all signs of effective sucking, the difference was also statistically significant between before and after counselling ($P<0.05$) except for the sign of oxytocin reflex noticed by the mother ($P>0.05$).

CBMJ 2022 July: vol. 11 no. 02 P: 102-107

Keywords: Breastfeeding, position, attachment, counselling

Introduction

Breastfeeding is one of the most effective ways to ensure child health and survival.¹ In 1990, the Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding was made by the United Nations Children's Fund (UNICEF), the World Health Organization (WHO) and other donor agencies.² WHO and UNICEF recommended exclusive breastfeeding from birth for the first 4-6 months of life, and sustained breastfeeding together with adequate complementary foods up to 2 years of age or beyond.^{1,2} Breast milk is a perfect nutrient, which is easily digested and helps bonding and development. It also protects against infection, delay a new pregnancy, preserves mother's health, and costs very less in comparison to any artificial feeding.^{1,2} Data shows that rate of initiation of breastfeeding within one hour in South Asian countries varies from 24% to 75%. For example, 24% in India, 24% in Bangladesh,

26% in Pakistan's, 31% in Nepal's, with 75% in Sri Lanka at the top.³ However, national level data are not available from Afghanistan, Bhutan and Maldives. Moreover, rate of exclusive breastfeeding during the first 6 months report of

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South Asian countries reveals that 10% in Maldives, 46% in Bangladesh, 47% in India, 50% in Pakistan, 58% in Sri Lanka and 68% in Nepal topped the list.³ However, we lack data from Afghanistan and Bhutan. It is obvious that mothers need support not only to begin breastfeeding within one hour after birth but also to sustain exclusive breastfeeding for 6 months and continue thereafter.^{1,4,5}

Many of the mothers need help, especially the primigravida, to position their babies for correct attachment to the breast. This is essential on the very first day after giving birth.^{1,6,7} Establishing good breastfeeding skills helps effective milk transfer from mother to the baby, which also helps mothers face the challenges in breastfeeding like nipple pain, sore nipples or mastitis etc.^{6,7} Many of the mothers cannot cope those problems and discontinue breastfeeding.⁶

For a proper attachment, a mother has to touch the upper lip of the baby with her nipple to stimulate rooting reflex, then to wait for the baby's mouth opening up, then mother will be quickly pulling the baby on to her breast to allow the baby to take a big mouthful of the breast.^{1,8,9} On the other hand, four key components of attachment are: baby's mouth wide open, lower lip turn outwards, Baby's chin touches the breast, More areola above baby's lip than below.^{1,8,9}

Teaching and counselling with breastfeeding chart and manuals help mothers improve their skills to maintain proper position and attachment of babies while breastfeeding.^{10,11} However, there are only few study reports published in our country to date. Hence, we proposed this study to compare the position and attachment of babies during breastfeeding before and after counselling the mothers attending in a tertiary level hospital of the country.

Methods

This prospective, observational study was conducted in the Department of Obstetrics and Gynaecology of Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh, between July 2008 and January 2009. Our study samples were 100 healthy mothers and 100 term healthy babies.

Inclusion criteria:

Full term (37 weeks – 42 weeks) babies breastfed within 24 hours of birth

Exclusion criteria:

- 1) Preterm babies <37 weeks
- 2) Post-term babies >42 weeks
- 3) Sick babies e.g. babies having history of perinatal asphyxia, meconium aspiration syndrome, etc.,
- 4) Low birth weight babies (<2.5 kg)
- 5) Sick mothers e.g. mothers having history of eclampsia, pre-eclampsia etc.

A standard breastfeeding data sheet was used in this study containing all criteria of position and attachment of the babies during breastfeeding. In initial section, all the selected mothers and babies were observed for their positioning and attachment during breast feeding and documented in the data sheet. If there was any problem observed in frequency of breastfeeding, the mother was informed the advantages of exclusive breastfeeding; the notion behind was that without determination of mother to breastfeeding the baby will not improve the sense of position and attachment. Moreover, they were shown the wall chart of nursing mothers and breastfeeding manual¹ and taught practically by the investigators. Mothers were requested to come after 15 days for follow-up visit so that they become physically fit by that time and improve their skills. At follow-up visit, documentation of

the positioning and attachment during breastfeeding was done in the data sheet. Then, comparison of each of the components of positioning and attachment was done with first observation (i.e. within 24 hours of the birth of the baby) and follow-up observation (i.e. after 15 days). Data were analyzed by using SPSS version 14.0. Chi-square test was done to see significance of proportion. P value <0.05 was considered statistically significant. The study was approved by the Ethics Review Committee of Bangladesh College of Physicians and Surgeons (BCPS), Dhaka, Bangladesh.

Results

Most of the mothers (42%) belonged to the 30-34 years age group. The mean age was 29.40 ± 4.71 years. Most of them are graduates (54%) and belonged to the semi-elite class (67%) (Table-I). In components of the positioning, before counselling 24% infant neck was straight or bent slightly back and after counselling it was 97.75%. Infant's body was turned towards the mother in 84% and 100% before and after counselling respectively. Infant's body was lying close to the mother in 34% and 97.75% cases before and after counselling respectively. Infant whole body was supported by only 2% before counselling, but 76.40% after counselling. The difference was statistically significant in all components ($P < 0.05$) (Table-II). In components of attachment, baby's mouth seen wide open in 82% were before counselling, but 100% after counseling. Lower lip turned outwards in 30% and 93.26% cases before and after counselling respectively. Baby's chin touched the breast of the mother in 20% and 93.25% cases before and after counselling respectively. Observing more areola above baby's lip than below were in only 4% cases, but 46.07% after counselling. All the differences were

statistically significant ($P < 0.05$) (Table-III). In signs of effective sucking, slow deep sucks in 78% and 97.75% cases before and after counselling respectively. Cheeks round when suckling observed in 74% before counselling, but in 97.75% after counselling. Baby released the breast when finished in 2% before counseling, but in 40.45% after counseling. Mother noticed signs of oxytocin reflex in 87% and 100% cases before and after counselling respectively. The differences were also statistically significant between before and after counselling ($P < 0.05$) except for the sign of oxytocin reflex noticed by the mother ($P > 0.05$) (Table-IV).

Table-I: Demographic characteristics of the mothers (n=100)

| Variables | Number | Percentage |
|---------------------------|------------------|------------|
| Age group | | |
| <20 | - | - |
| 20-24 | 16 | 16.0 |
| 25-29 | 28 | 28.0 |
| 30-34 | 42 | 42.0 |
| >35 | 14 | 14.0 |
| Mean±SD | 29.40±4.71 years | |
| Education | | |
| Primary | 6 | 6.0 |
| Secondary | 10 | 10.0 |
| Higher Secondary | 12 | 12.0 |
| Graduate | 54 | 54.0 |
| Postgraduate | 18 | 18.0 |
| Economic condition | | |
| Poor | 22 | 22.0 |
| Semi-elite | 67 | 67.0 |
| Elite | 11 | 11.0 |

Table-II: Comparison in components of positioning

| Component of positioning | Before counseling (n=100) | | After counseling (n=89) | | P value |
|---|---------------------------|---------|-------------------------|------------|---------|
| | Yes | No | Yes | No | |
| Infant neck is straight or bent slightly back | 24(24%) | 76(76%) | 87(97.75%) | 2(2.25%) | 0.001 |
| Infants body is turned towards the mother | 84(84%) | 16(16%) | 89(100%) | - | 0.009 |
| Infant body is close to the mother | 34(34%) | 66(66%) | 87(97.75%) | 2(2.25%) | 0.001 |
| Infant's whole body supported | 2(2%) | 98(98%) | 68(76.40%) | 21(23.59%) | 0.001 |

Table-III: Comparison in components of attachment

| Components of attachment | Before counseling (n=100) | | After counseling (n=89) | | P value |
|---|---------------------------|---------|-------------------------|------------|---------|
| | Yes | No | Yes | No | |
| Baby's mouth wide open | 82(82%) | 18(18%) | 89(100%) | - | 0.005 |
| Lower lip turns outwards | 30(30%) | 70(70%) | 83(93.26%) | 6(6.74%) | 0.001 |
| Baby's chin touches the breast | 20(20%) | 80(80%) | 36(93.26%) | 5(6.74%) | 0.001 |
| More areola above baby's lip than below | 4(4%) | 94(94%) | 41(46.07%) | 48(53.93%) | 0.001 |

Table-IV: Comparison of signs of effective sucking

| Signs of effective sucking | Before counseling n=100 | | After counseling n=89 | | P value |
|---|-------------------------|---------|-----------------------|------------|---------|
| | Yes | No | Yes | No | |
| Slow deep sucks with pause | 78(78%) | 22(22%) | 87(97.75) | 2(2.25%) | 0.007 |
| Cheeks round when suckling | 74(74%) | 26(26%) | 87(97.75%) | 1(2.25%) | 0.003 |
| Baby releases breast when finished | 2(2%) | 98(98%) | 36(40.45%) | 53(59.55%) | 0.001 |
| Mother notices signs of oxytocin reflexes | 13(13%) | 87(87%) | 89(100%) | 0(0) | 0.342 |

Discussion

Breastfeeding is a cornerstone of child survival and child health because it provides essential, irreplaceable nutrition for a child's growth and development.^{1,2} Therefore, breastfeeding should be encouraged and supported for all women. Breastfeeding provides significant social and economic benefits to the nation, including reduced health care costs and reduced employee absenteeism for care attributable to child illness.¹² Our study found that most of the nursing mothers (42%) belonged to the 30-34 years age group. The mean was 29.40±4.71. Most of them are graduates (54%) and belonged

to the semi-elite class (67%). Similar observations were reported by some other investigators.^{10,13-16}

The present study showed that proper counseling improves the skills of the mothers, as in all components of the position and attachment of the babies during breastfeeding had significant difference between before and after counseling.

Gupta & Aggarwal¹⁵ reported that in components of position and attachment during breastfeeding, mothers' performances were significantly improved after counseling. Besides, Gupta & Aggarwal¹⁵ found that a significant improvement

was achieved through counselling in ensuring effective sucking by the babies. Similar results were reported by Nagendra *et al.*¹⁶, as they observed that more than 97% of mothers were able to attach their babies well, while 98% were able to position their babies correctly after intervention.

Correct positioning and technique for latching on can prevent nipple soreness and allow the baby to obtain enough milk.^{6,8,17} The "rooting reflex" is the baby's natural tendency to turn towards the breast with the mouth open wide; mothers sometimes make use of this by gently stroking the baby's cheek or lips with their nipple in order to induce the baby to move into position for a breastfeeding session, then quickly moving baby onto the breast while baby's mouth is wide open.^{6,8,18} In order to prevent nipple soreness and allow the baby to suck enough milk, a large part of the breast and areola need to enter the baby's mouth.^{8,17,18} Proper breastfeeding counselling is an effective tool to ensure and maintenance of breastfeeding throughout the country.¹

WHO is actively promoting breastfeeding as the best source of nourishment for infants and young children and trying to increase the rate of exclusive breastfeeding for the first 6 months up to at least 50% by 2025.¹⁹ WHO and UNICEF created the Global Breastfeeding Collective to rally political, legal, financial, and public support for breastfeeding all over the world.²

Conclusion

Breast feeding counseling could increase the proportion of babies who were breast-fed as well as breast milk intake among those who continued to breastfeed. After counselling the mothers, they became more confident and adapted to frequent breastfeeding habits maintaining proper

positioning and attachment of their babies. For making breastfeeding practices successful, it is important to counsel mothers about the advantages of breastfeeding as well as correct position and attachment of breastfeeding. Separate training session or assistance during first few episodes of breast feeding could be an effective method of choice.

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