

WABA Research Task Force (RTF) e-newsletter

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From the Editors

This issue

We are pleased to share with you the fourth issue of the WABA Research Task Force (RTF) E-newsletter. The cesarean section (CS) rate is on the increase in many parts of the world. At the Karolinska Institute, Sweden researchers are studying the benefits of promoting skin-to skin contact to facilitate breastfeeding as well as providing other benefits. This issue also deals with the long-term benefits of lactation for mothers and children, dilemmas facing breastfeeding working mothers and the impact of the Baby-Friendly Hospital Initiative in Brazil. Finally we present an article that describes how company marketing practices affect infant feeding decisions in the Philippines.

About the newsletter

There is an abundance of research and much of this can be accessed through journals and databases such as Medline. This newsletter aims to present some of this emerging research in a comprehensive and easy-to-read format. For each issue, we will choose a few current topics where we ask key researchers/programme experts to summarise the latest research and explain how these findings can be applied in the real world. You will also find abstracts and commentaries on a few research studies and the links to the full text articles for further reading.

We hope that this newsletter will enhance your work, whether programme, clinical or advocacy, as well as stimulate discussion about research findings, methodologies and ethics. Your comments on the current topics and articles are most welcome! If you have any suggestions for future topics, please let us know. The newsletter will be issued three times a year.

Enjoy reading! And Happy Holidays!

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Parent-Infant Skin-to-Skin Contact after Caesarean Section: Effect on Interaction and Breastfeeding

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It is well known that parent-infant skin-to-skin contact leads to that the baby cries less, save more energy, become warmer and calm¹. It is also known that mother-infant skin-to-skin contact directly after birth facilitates the first breastfeeding. The healthy unmedicated newborn starts to move to the breast and try to catch the nipple, massage the breast and initiate the first breastfeeding within approximately one hour². The newborn is guided by sensory cues as the mothers naturally breast odor and in addition the newborn can hear and recognizes the mothers voice³. This first mother-infant contact is easily disturbed by different care practices and especially mother-infant separation after Caesarean section. After giving birth by Caesarean section, the newborn first breastfeeding is often delayed due to immediate separation from the mother. The newborn is often placed in a bed or in an incubator instead of getting skin-to-skin contact with the mother or father.

In a recent study⁴ we have elucidated the parent- infant interaction in skin-to-skin during the first 30 minutes immediately after an elective cesarean section with spinal anesthesia. Thirty-seven infants born to first-time mothers with Caesarean section were randomized to stay in skin-to-skin contact with the mother immediately after birth or in skin-to-skin contact with the father. At birth the healthy newborn infant was gently dried and placed in skin-to-skin on the mothers or the fathers' chest and then covered with a blanket. The parent-infant interaction was videotaped and the time-in point for the first breastfeeding was registered. We found that there the new parents' communication seems to stimulate the newborns vocalization as soon as 15 minutes after birth. This relates to how communication begins. The newborn initiated the communication by making specific sounds, called soliciting sounds, the parent with skin-to-skin contact answered with soliciting sounds. When the newborn was put in skin-to-skin contact with the father the newborn cried less and the father communicated more with the mother and with the newborn infant, especially if the newborn was a boy⁵.

Girls with uninterrupted skin-to-skin contact with their mother breastfeed significantly earlier than did girls engaged in skin-to-skin contact with their father during the first 30 minutes after birth⁵.

This knowledge may motivate very early parent-infant communication and breastfeeding immediately after Caesarean section and parent-infant skin-to-skin contact may also have positive long-term effects on the parent-interaction⁶.

Application for practice

These findings give reason to support the importance of mothers in having skin-to-skin contact immediately after Cesarean section in order to facilitate the first breastfeeding encounter and, thereafter, to encourage skin-to-skin contact interactions between the father and the newborn as it has been shown to increase their vocal interaction. The parents should be informed about the newborns vital signs to achieve safe skin-to-skin contact.

Duration of Lactation and Incidence of Maternal Hypertension: A Longitudinal Cohort Study

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2. Widstrom, A. M., G. Lilja, et al. (2010). "Newborn behaviour to locate the breast when skin-to-skin: a possible method for enabling early self-regulation." *Acta Paediatr* **100** (1): 79-85.
3. DeCasper, A. J. and W. P. Fifer (1980). "Of human bonding: newborns prefer their mothers' voices." *Science* **208** (4448): 1174-6.
4. Velandia, M., A. S. Matthisen, et al. (2010). "Onset of vocal interaction between parents and newborns in skin-to-skin contact immediately after elective cesarean section." *Birth* **37** (3): 192-201.
5. Velandia, M., K. Uvnas-Moberg, et al. (2011). "Sex differences in newborn interaction with mother or father during skin-to-skin contact after Caesarean section." *Acta Paediatr*.
6. Bystrova, K., V. Ivanova, et al. (2009). "Early contact versus separation: effects on mother-infant interaction one year later." *Birth* **36** (2): 97-109

Never or curtailed lactation has been associated with an increased risk for maternal hypertension, but the effect of exclusive breastfeeding is unknown. As part of an observational cohort study of 55,636 parous women in the US Nurses' Health Study II, the authors investigated the association of lactation with hypertension.

Women who never breastfed were more likely to develop hypertension than women who exclusively breastfed their first child for ≥ 6 months. The authors found similar results for women who had never breastfed compared with those who had breastfed each child for an average of ≥ 12 months. These results were materially unchanged with adjustment for current BMI and parity. All major medical organisations in the United States recommend ≥ 6 months of exclusive and ≥ 12 months of total breastfeeding for each child and therefore these were used by the researchers as outcome measures.

The authors conclude that never or curtailed lactation was associated with an increased risk of incident maternal hypertension in a large cohort of parous women, independent of BMI. They suggest that policies that increase support for breastfeeding mothers may decrease the burden of hypertensive disease among parous women.

Steube AM, Schwarz EB, Grewen K et al (2011) Duration of Lactation and Incidence of Maternal Hypertension: A Longitudinal Cohort Study. *Am. J. Epidemiol.* published 12 October 2011, 10.1093/aje/kwr227

Comments from the editor: *One common problem when studying the association between lactation and health outcomes is that of confounding factors. In simple terms this means that mothers who breastfeed are more likely to engage in other health promoting behaviours, which in turn positively affect their health status. This study rigorously controlled or investigated the impact of confounding using sophisticated statistical*

Breastfeeding and child cognitive development: New evidence from a large randomised trial

analyses. They came to the conclusion that about 12% of the incident hypertension can be attributed to suboptimal breastfeeding. Yet another argument for promoting and supporting breastfeeding, this time for long term maternal health.

The evidence that breastfeeding improves cognitive development is based generally on observational studies and therefore may be affected by differences in the breastfeeding mother's behavior or her interaction with the infant. The PROBIT study followed up children from the original cohort at 6.5 years of age to assess whether prolonged and exclusive breastfeeding improves children's cognitive ability. A total of 17,046 healthy breastfeeding infants were enrolled, of whom 13,889 (81.5%) were followed up at age 6.5 years. The researchers measured IQ scores on the Wechsler Abbreviated Scales of Intelligence and teacher evaluations of academic performance in reading, writing, mathematics, and other subjects. The experimental intervention led to a large increase in exclusive breastfeeding at age three months and a significantly higher prevalence of any breastfeeding at all ages up to and including 12 months. The experimental group had higher mean scores on all of the Wechsler Abbreviated Scales of Intelligence measures for IQ. Teachers' academic ratings were significantly higher in the experimental group for both reading and writing. The researchers conclude that their results demonstrate that prolonged and exclusive breastfeeding improves children's cognitive development.

Kramer MS, Aboud F, Mironova E. (2008) Breastfeeding and child cognitive development: New evidence from a large randomized trial. Arch Gen Psychiatry 2008; 65; 578-584.

Comments from the editor: *The PROBIT trial is one of the largest randomised trials on breastfeeding promotion. The experimental intervention was based on the Baby-Friendly Hospital Initiative and resulted in a significant increase in both duration and exclusivity of breastfeeding. The results of the intervention on later cognitive development are of particular significance perhaps in settings where breastfeeding is not a matter of life and death, i.e., more industrialised settings.*

Breastfeeding at work needs to be better recognized and supported

To combine breastfeeding and paid work requires a negotiation of the roles of good mother and good worker, Payne and Nicholls conclude in an article in Journal of Advanced Nursing¹. The authors emphasize that the strategies used by breastfeeding mothers in the workplace tend to maintain the marginalization and invisibility of the issue. By disciplining themselves to minimize the disruptive effects of BF on their work they manage to fulfill both the ideals of being a good worker and a good mother at the same time. This was done by stockpiling breast milk and maintaining milk supply, which sometimes took a lot of preparations and planning, as well as skills. Not only did the mothers discipline themselves in this way but also prepared their babies for their absence through bottle feeding

The Baby-Friendly Hospital Initiative shows positive effects on breastfeeding indicators in Brazil

training and teaching them to be adaptable. However, these strategies conserve the present situation and leave breastfeeding mothers in the dilemma of fulfilling two contradictory expectations. In order to change this pattern, Payne and Nicholls suggest that nurses and midwives have the potential to bring about change by educating and supporting women in relation to breastfeeding. At the same time they can themselves lead by example by supporting their breastfeeding colleagues by demonstrating understanding and arguing for appropriate spaces where breastfeeding mothers may feed their babies or extract breast milk. Furthermore, Payne and Nicholls put forward the importance of professional nursing unions that can play a significant role by lobbying governments to provide paid work breaks for breastfeeding workers.

1. Payne, D & Nicholls, D.A. *Managing breastfeeding and work: a Foucauldian secondary analysis*, *J Adv Nurs*. 2010 Aug; 66(8): 1810-8. Epub 2010 Jun 16.

Comments from the editor: *This study uses a Foucauldian analysis to go beyond merely describing the situation for breastfeeding working mothers. It provides a framework for understanding the moral imperatives that influence mother's decisions and strategies in such situations. The study also highlights the agency and extraordinary efforts of breastfeeding female workers themselves.*

The influence of the Baby Friendly Hospital Initiative (BFHI) on breastfeeding indicators in Brazil was assessed using data from the Second Survey of Breastfeeding Prevalence, conducted in 2008. The data included details of 65,936 infants under the age of 1 year and across 64 municipalities. Outcomes of interest were breastfeeding in the first hour of life in infants under 1 year of age; exclusive breastfeeding on the first day after hospital discharge in infants under 4 months of age; exclusive breastfeeding in infants under 2, 3 and 6 months of age; and pacifier use in infants under 6 months of age. Statistical analyses were used to assess the influence of birth in a Baby Friendly hospital.

The researchers found that infants born in Baby Friendly hospitals were 9% more likely to be breastfed in the first hour of life and 6% more likely to be breastfed on the first day at home. Exclusive breastfeeding was 13%, 8% and 6% more likely in infants under the ages of 2, 3 and 6 months, respectively. Birth in a Baby Friendly hospital also correlated with significantly less pacifier use. They conclude that the BFHI has a positive impact on several indicators of breastfeeding.

Sonia Isoyama Venancio, Silvia Regina Dias Medici Saldiva, Maria Mercedes Loureiro Escuder et al (2011) The Baby-Friendly Hospital Initiative shows positive effects on breastfeeding indicators in Brazil. *J Epidemiol Community Health*. published 11 November 2011, 10.1136/jech-2011-200332

Is unimpeded marketing for breast milk substitutes responsible for the decline in breastfeeding in the Philippines?

It is clear that infant mortality and morbidity risk is linked to formula usage. The proportion of Filipino infant formula users rose 6% between 2003 and 2008. One hypothesis is that this rise resulted from aggressive formula industry marketing. A household survey (2006) and focus groups (2007) were conducted in The Philippines to examine the association between mothers' exposure to advertising and other information sources and formula feeding decisions. Sixteen barangays (communities) were randomly selected from three purposively selected disadvantaged rural, urban and mixed municipalities. A total of 345 households had children under 24-months age: 114, 142 and 89 households from the rural, urban and mixed municipalities, respectively. In addition 38 respondents participated in 3 focus groups of 10-15 participants each, from three selected barangays. After adjusting for education and economic indicators logistic regression analysis showed that, children were more likely to be given formula if their mother recalled advertising messages, or a doctor, or mother or relative recommended it. Those using formula were 6.4 times more likely to stop breastfeeding before 12 months. The focus groups described how television advertisements, doctors and medical representatives enticed them to use formula. We conclude that two factors were strongly associated with the decision to formula feed: self-reported advertising exposure, and physicians' recommendations.

Sobel HL, Iellamo A, Raya RR, Padilla AA, Olivé JM, Nyunt-U S. Is unimpeded marketing for breast milk substitutes responsible for the decline in breastfeeding in the Philippines? An exploratory survey and focus group analysis. Soc Sci Med. 2011 Nov;73 (10):1445-8. Epub 2011 Sep 17.

Comments from the editor: *One of the strengths of this study is that it combines both quantitative and qualitative methods. This means that the findings of the household survey could be further probed during the subsequent focus group discussions, thus shedding light on the mechanisms. The study highlights the importance of protecting breastfeeding from company marketing practices such as advertising and using health professionals to promote products. The marketing messages reach even the poorest segments of Filipino society which is alarming as these also have the highest infant mortality rates and would benefit tremendously from improved breastfeeding practices. Enforced legislation in line with the International Code of Marketing of Breastmilk Substitutes and the subsequent World Health Assembly resolutions would probably go a long way in addressing these problems. Furthermore, health professionals should be more cautious in promoting unsafe feeding practices in general, and in resource poor settings in particular.*



The World Alliance for Breastfeeding Action (WABA) is a global network of individuals and organisations concerned with the protection, promotion and support of breastfeeding worldwide based on the Innocenti Declaration, the Ten Links for Nurturing the Future and the WHO/UNICEF Global Strategy for Infant and Young Child Feeding. Its core partners are International Baby Food Action Network (IBFAN), La Leche League International (LLL), International Lactation Consultant Association (ILCA), Wellstart International, and the Academy of Breastfeeding Medicine (ABM). WABA is in consultative status with UNICEF and an NGO in Special Consultative Status with the Economic and Social Council of the United Nations (ECOSOC).

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