Clinical Article

Narrative Review
Central Eur J Paed 2019;15(2):107-112
DOI 10.5457/p2005-114.239

Barriers and Facilitators to Be Baby Friendly Hospital (BFH): The Experience of Tuzla Hospital

Izeta Softić

Children's Hospital, University Clinical Center Tuzla, Tuzla, Bosnia and Herzegovina

Correspondence:
izeta.softic@bih.net.ba
Tel.: +387 61 636 333
Fax.: + 387 35 303 740

Received: June 3, 2019
Accepted: August 5, 2019

Key Words: Infant Feeding Practice ▪ Baby Friendly Hospital ▪ Tuzla Canton.

The aim of this review is to discuss the local experience of Tuzla's hospital staff and the knowledge needed to become a Baby-Friendly Hospital (BFH). We also discuss the risks of formula feeding. While breast milk is the natural modality of infant feeding, in Tuzla Canton, the rate of exclusive breastfeeding in the first 6 months of life is only 12%. During the war of 1992-1995, which was the worst European atrocity since World War II and the worst set of events in the recent history of Bosnia-Herzegovina, we had the opportunity to learn more about the impact of breastfeeding on child health from Chloe Fisher, a renowned clinical specialist on infant feeding. The United Nation Children's Fund (UNICEF) and the World Health Organisation (WHO) held several seminars, about recommended practices and procedures needed to become a BFH. As a result, the Maternity Hospital was certified as a BFH in 2004 and has been operating with this status since then. While our Maternity Hospital and other related departments provided services and care of infants, many infant formula companies donated milk and organized conferences and other paediatric events to promote infant formula. This and other obstacles resulted in the fact that currently only 3 out of 7 mothers in our neonatology department breastfeed, and only 1 baby out of 7 is exclusively breastfed. **Conclusion** – Transforming a hospital in Baby-Friendly means, amongst other things, all professionals must provide breastfeeding management to ensure a long-term breastfeeding policy. The current low breastfeeding rate in our hospitals is the result of inconsistent policies in achieving long-term goals in breastfeeding practices.

Introduction

Breastfeeding is the cornerstone of child survival, nutrition, development and overall health. As such, it is important to protect, promote and support breastfeeding in health facilities. WHO recommends exclusive breastfeeding for the first 6 months of life, followed by continued breastfeeding with appropriate complementary foods for up 2 years or beyond (1). Bottle-feeding should be considered an alternative to be used in the absence of breast milk or when there are serious contraindications for the mother or the baby to breastfeed. Bottle-feeding has been common practice since the 20th Century (2).

The report by WHO (3) on the rate of feeding with infant formula shows large regional variation. The rate of formula feeding within the first hour after birth is lowest in Eastern and Southern Africa (35%) and highest in East Asia and the Pacific (68%). This report also shows that only 1/10 babies born

in Burundi, Sri Lanka and Vanuatu are bottle-feed within the first hour, compared to 8/10 babies in Azerbaijan, Chad and Montenegro. Around 40% of all infants aged 0–6 months are exclusively breastfed worldwide (3).

Many factors influence infant and child feeding practices worldwide. The most common reasons for bottle-feeding are low levels of education about the advantages of breast feeding for the health and well-being of the child and mother, caesarean deliveries and other delivery difficulties. Moreover, we need to take into consideration the commercial pressures of companies producing formula milk on physicians and mothers, leading to widespread misinformation about the equivalence of breast milk and formula milk (4).

In Tuzla hospital, in the maternity ward, 1/5 of 4144 deliveries are by caesarean section, and these mothers are at risk for breastfeeding failure (5). Although the initiation rate of breastfeeding is 75.9%, the rate of exclusive breastfeeding by the sixth month is only 12% (6). The main reason for this low rate of exclusive breastfeeding is the lack of knowledge of the health care staff and consequently the mothers.

Bottle-feeding practices have many risks, such as: the increased incidence of infections in neonates and infants, otitis media, gastroenteritis, and pneumonia, as well as increased risks of childhood obesity, type 1 and type 2 diabetes and sudden infant death syndrome (SIDS). There are also risks for mothers such as: increased incidence of premenopausal breast cancer, ovarian cancer, retained gestational weight gain, type 2 diabetes, and metabolic syndrome (7).

The aim of this review is to discuss how we have improved breastfeeding knowledge to attain Baby-Friendly status at the hospital in Tuzla, as well as to discuss the reasons for the low breastfeeding rate even with Baby-Friendly status, and elaborate the risks of bottle-feeding.

Why Bottle-Feeding Rates are Increasing in Bosnia and Herzegovina and the Impact of the War (1992-1995)

According to the published data, in 1932 90% of mothers breastfed in the Tuzla Region (8). Worldwide, breastfeeding was almost a universal practice, but it decreased by the middle of the 20th century. Later it again became the best practice for feeding neonates and infants. Doctors and health personnel were deeply involved in the promotion of breastfeeding, as a return to traditional values and to the choice of a natural practice to feed newborns. Unfortunately, the health benefits of breastfeeding were not emphasized enough, and formula milk became popular. The 20th century also saw cultural, social and technological changes in defining the roles of women, their income and education, as well as practices (9).

In the pre-war period in Bosnia and Herzegovina, we learned the basics about breastfeeding at the Faculty of Medicine in Sarajevo, and almost every infant received supplementation with formula or tea. Until recently, breastfeeding was and still is considered a difficult topic to study for clinicians who deal with infant nutrition issues (10).

The war of 1992-1995, which was the worst European atrocity since World War II and the worst set of events in the recent history of Bosnia-Herzegovina, gave us the opportunity to learn more about the impact of breastfeeding on child health from Chloe Fisher, a renowned clinical specialist on infant feeding, through the "The Baby-friendly Hospital Initiative" (BFHI). The BFHI was launched in 1991 by UNICEF and the WHO, who aimed to ensure that all maternity hospitals become centres of breastfeeding support. During these seminars and courses, staff were taught breastfeeding techniques and many other topics about the re-

quirements needed to become a BFH (11). Many other cultural activities followed, such as: training in Budapest for BFH assessors in 1995, a seminar about implementation of the International Code of Marketing of Breast milk Substitutes. In order to follow the recommendations hospitals had to avoid activities promoting breast milk substitutes, bottles or teats, or the distribution of free formula (12). As mentioned previously, the Maternity Hospital was certified as a BFH in 2004.

In the post-war period we gained the knowledge to promote, support and protect breastfeeding. We studied breastfeeding literature such as "What Every Physician Needs to Know about Breastfeeding" (13) and many other documents. In 1995 we started celebrating the World Breastfeeding Week (WBW) with various topics every year and we still celebrate it. It is another opportunity to continue learning about breastfeeding. In many studies published from Tuzla region, we researched modes of delivery and infant feeding practices during the first six months of life. We also researched infant feeding practices in the first six months and also the effects of feeding practice methods on respiratory and gastrointestinal illnesses (5, 6, 14). At the same time the promotion of infant formula by pharmaceutical industries was strong and aggressive. We endeavored to comply with the BFHI recommendations, but corporations "donated" infant formula and other promotional materials to Maternity and Paediatric Departments and across Tuzla Canton, as well as the whole Bosnia and Herzegovina. This continued to be the practice even after our attendance of the 13th Annual Breastfeeding Practices and Policy Certificate Course, which was held 14th June to 9th July in 2004, where we learned about code violations (15). Conferences and other paediatric events were used as an opportunity to promote infant formulas by commercial players. It was clear that the infant formula companies use this opportunity to promote bottle-feeding. In order to become and keep the status of BFH we have to implement the Ten Steps to Successful Breastfeeding: 1) have a written breastfeeding policy that is routinely communicated to all health care staff; 2) train and equip all health care staff with skills necessary to implement this policy; 3) inform all pregnant women about the benefits and management of breastfeeding; 4) help mothers initiate breastfeeding within half an hour of birth; 5) show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants; 6) give newborn infants no food or drink other than breast milk, unless medically indicated; 7) practise rooming-in - meaning, allow mothers and infants to remain together 24 hours a day; 8) encourage breastfeeding on demand; 9) give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants; 10) foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic (11).

Infant Formula in Relation to Preterm Infants

Prematurity is associated with high neonatal mortality and morbidity. Necrotizing enterocolitis (NEC) is developed following a combination of prematurity, formula feeding, and adverse microbial colonization (16). Formula-feeding is associated with altered body composition from birth to term and preterm infants (17). The incidence rate of feeding intolerance, and the incidence rates of complications, including necrotizing enterocolitis and retinopathy of prematurity, are higher in preterm formula fed infants (18).

Moreover, rehydrated powdered infant formula was found to be the source of pathogen bacteria in several outbreaks of Enterobacter sakazakii infections in a Neonatal

Intensive Care Unit (NICU) (19). Public health authorities and researchers are exploring ways to eliminate or to control the bacteria growth in dry infant formula, processing environments, and formula preparation areas in hospitals.

Unfortunately, and in spite of all the evidence and everything that we have learned over the years about the advantages of breastfeeding, the doctors and staff in the Neonatal Intensive Care Unit (NICU) of the Paediatric clinic in Tuzla still believe that feeding with formula is easier and safer than using mother's milk.

Are We Aware of the Risks of Bottle-Feeding?

Infants who receive formula milk, in addition to breast milk, show a higher risk of death from diarrhea (4.2 times) compared with infants who do not receive artificial milk. The risk for infants who did not receive any breast milk was 14.2 times higher than the others (20). Formula fed infants are hospitalized more frequently for gastroenteritis, asthma and bronchitis than breastfed newborns and infants (21, 22).

Bottle-feeding instead of breastfeeding and a possible lack of maternal bonding-related behaviour may increase the risk for later psychopathology and attachment problems (23, 24, 25). Clinicians should pay special attention to any lactation difficulty during the first week postpartum. Early lactation difficulties are associated with a greater risk of early termination of breastfeeding and lower breastfeeding success (26).

What is Left of the BFH Today?

Today there are many obstacles to successful breastfeeding, but the main one is the lack of continuous compliance and knowledge necessary to make lasting policy change. Secondly, the influence of infant formula companies is another obstacle for a BFH. Additionally, the breastfeeding knowledge of parents is insufficient too. I will use the following case of a mother who recently delivered her second child, to support the opinion that today's breastfeeding situation is worse than it once was. Post delivery, the mother was in the neonatology while her baby was in the Neonatal Intensive Care Unit (NICU) since the baby developed respiratory distress syndrome after a caesarean delivery. The mother was concerned about breastfeeding and asked to express her milk, but the staff did not show any interest. After the baby was discharged from the NICU, the mother started to breastfeed herself because she had experience with her first baby. The mother sent the following message to the physician who taught her how to breastfeed the first baby: "Today I spoke with the staff in the neonatology department about the general attitude towards breastfeeding and the current situation is such that only 3 out of 7 mothers in this neonatal department are breastfeeding and only my baby is exclusively breastfed."

Concluding Remarks

In the Tuzla region, the current rate of breastfeeding is significantly low. In order to improve, it is key to continuously educate staff about breastfeeding management. Educated healthcare workers will be more capable to transfer breastfeeding knowledge to parents. Equally, it is important to be aware of the risks of formula feeding in order to promote the benefits of breastfeeding further. From this we can say that knowledge about breastfeeding is one of the important factors needed for a Baby–Friendly Hospital. Our basic mission for the future is to keep working on improving breastfeeding rates, following the international recommendations mentioned above. In order to do so, we need to work

on implementing the National policy of infant feeding practices within our hospitals. We also need to work on having all those companies who manufacture and distribute products for feeding babies implement this policy as well. Furthermore, we need to publish data to show commercial bottle-feeding figures. Information underlying the inferiority of infant-formula compared to the breastmilk will also help improve the breastfeeding rates. Practices such as including a companion during delivery and encouraging the medical staff to have practical skills for breastfeeding management are all contributors to breastfeeding success.

Conflict of Interest: The author declares that she has no conflict of interest.

Reference

1. Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003 [cited 2019 June 12]. Available from: http://apps.who.int/iris/bitstream/10665/42590/1/9241562218.
2. Obladen M. Pap, gruel, and panada: early approaches to artificial infant feeding. Neonatology. 2014;105(4):267-74.
3. Infant and young child feeding - World Health Organization, newsletter 2018.
4. Van Esterik P. The Politics of breastfeeding: An Advocasy Update. 2005;p511-30.
5. Softić I, Tahirović H, Atić N. Infants feeding practice in first six months according to delivery practices. Gynaecologia et Perinatologia 2007;16(4):196-9.
6. Softić I, Atić N, Tahirović H. Infants feeding practice in first six month in Tuzla canton Med Arh. 2006;60(1):38-40.
7. Alison S. The Risks of Not Breastfeeding for Mothers and Infants. Obstet Gynecol. 2009; 2(4): 222-31.
8. Mujbegović M. Problems child protection in Bosnia and Herzegovina [in Serbian] Glasnik Centralnog higijenskog zavoda. 932:7;11-32.
9. Wright A, Schanler R. The resurgence of breastfeeding at the and of the second millennium. J Nutr.2001;131(2):421S-5S.
10. Lawrence, R.A. Breastfeeding in modern medicine. In: Lowrence R.A, Lowrence RM, editors. Guide for medical professions. St.Luis; 1999. p.1-33.
11. ICEF/WHO. Breastfeeding Management and Promotion in a Baby-Friendly Hospital; an 18-hour course for maternity staff. 1993.
12. World Health Organization (WHO). Baby-friendly hospital initiative: revised, updated and expanded for Integrated care Preface for the 2009 BFHI materials: revised, updated and expanded for Integrated care. [accessed June 30, 2015; cited 2019 June 12]. Available at www.ncbi.nlm.nih.gov/books/NBK153495/.
13. 10th Annual International Meeting of the Academy of Breastfeeding Medicine; "Taking Breastfeeding to New Heights"; October 20-24, 2005.
14. Softić I, Atić N, Tahirović H. Infant feeding in respiratory and gastrointestinal infections during the first six months of life. Med Arh. 2008;62(1):14-7.
15. International Child Healh. Breastfeeding:Practice and Policy Course; Institute of Child Health University Colleage London; 2004.
16. Mara MA, Good M, Weitkamp JH. Innate and adaptive immunity in necrotizing enterocolitis. Semin Fetal Neonatal Med. 2018;23(6):394-9.
17. Huang P, Zhou J, Yin Y, Jing W, Luo B, Wang J. Effects of breast-feeding compared with formula-feeding on preterm infant body composition: a systematic review and meta-analysis. Br J Nutr. 2016 Jul;116(1):132-41.
18. Atkinson SA; Human milk feeding of the micropremie; Clin Perinatol. 2000: 27(1):235-47.
19. Gurtler JB, Kornacki JL, Beuchat LR. Enterobacter sakazakii: a coliform of increased concern to infant health. Int J Food Microbiol. 2005:25;104(1):1-34.
20. Victora CG, Smith PG, Vaughan JP, Nobre LC, Lombardi C, Teixeira AM, et al. Infant feeding and deaths due to diarrhoea. A case-control study. Am J Epidemiol. 1989:129(5):1032-41.
21. Chen Y, Yu SZ, Li WX. Artificial feeding and hospitalization in the first 18 months of life. Pediatrics. 1988 ;81(1):58-62.
22. Hide DW, Guyer BM. Clinical manifestations of allergy related to breast and cows' milk feeding. Arch Dis Child. 1981;56(3):172-5.
23. Schwarze CE, Hellhammer DH, Stroehle V, Lieb K, Mobascher A. Lack of Breastfeeding: A Potential

Risk Factor in the Multifactorial Genesis of Borderline Personality Disorder and Impaired Maternal Bonding. J Pers Disord. 2015;29(5):610-26.

24. Fallon V, Groves R, Halford JC, Bennett KM, Harrold JA. Postpartum Anxiety and Infant-Feeding Outcomes. J Hum Lact. 2016 ;32(4):740-58.

25. Akman I, Kuscu MK, Yurdakul Z, Ozdemir N, Solakoğlu M, Orhon L, et al. Breastfeeding duration and postpartum psychological adjustment: role of maternal attachment styles J Paediatr Child Health. 2008;44(6):369-73.

26. Annagür A, Annagür BB, Şahin A, Örs R, Kara F. Is maternal depressive symptomatology effective on success of exclusive breastfeeding during postpartum 6 weeks? Breastfeed Med. 2013;8(1):53-7.